

1 IN THE UNITED STATES DISTRICT COURT  
2 EASTERN DISTRICT OF TEXAS  
3 TEXARKANA DIVISION

4 THE STATE OF TEXAS, \* NO. 5:96CV91  
5 Plaintiff, \*  
6 VS. \* JUDGE DAVID FOLSOM  
7 THE AMERICAN TOBACCO \*  
8 COMPANY, et al., \* MAGISTRATE JUDGE  
9 Defendants. \* WENDELL C. RADFORD  
10 \* JURY  
11 \* \* \* \* \*

Property of: Ness, Motley  
Main PI File Room  
Charleston, SC

12  
13 VIDEOTAPED DEPOSITION OF  
14 RONALD JOHN LUKAS, Ph.D.  
15  
16  
17  
18

19 On August 13, 1997, the videotaped  
20 deposition of RONALD JOHN LUKAS, Ph.D., a witness in  
21 the above-styled cause, was taken at the instance of  
22 the Plaintiff in the offices of Bryan Cave, L.L.P.,  
23 2800 North Central Avenue, 21st Floor, Phoenix,  
24 Arizona, pursuant to Stipulation of Counsel  
25 contained herein.

COPY

Those persons present were as follows:

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I N D E X

DEPOSITION OF RONALD JOHN LUKAS, Ph.D.

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(PRIOR TO THE COMMENCEMENT OF  
THE DEPOSITION, THE NOTICE WAS MARKED  
FOR IDENTIFICATION PURPOSES AS  
EXHIBIT NO. 1. SAME WILL BE FOUND AT  
THE CONCLUSION OF THIS DEPOSITION.)

RONALD JOHN LUKAS, Ph.D.,

having been duly sworn, testified as follows,  
to-wit:

MR. THORP: I'm taking this  
deposition pursuant to the Rules of  
the Eastern District of Texas Court,  
local Rules.

EXAMINATION BY MR. THORPE:

Q Dr. Lukas, my name is Larry Thorpe. And  
along with Mr. Richard Clarkson, I'm one of the  
lawyers involved in the litigation against the  
tobacco companies. And we represent the State of  
Texas. Do you understand that?

A Yes, I do.

Q Okay. And we're here today to take your  
deposition regarding the information you've provided  
us and the opinions that you've provided us; is that

1 correct?

2 A Yes.

3 Q I would like you to look at what we've had  
4 marked Deposition Exhibit No. 1. This is a Notice  
09:20:08 5 of your deposition noticed for today at 9:00 o'clock  
6 in the law offices here. Have you seen that  
7 document before?

8 A Yes, I have.

9 Q Okay. And you're here to comply with the  
09:20:18 10 deposition Notice; is that correct?

11 A Yes, I am.

12 MR. THORPE: Mark that as  
13 Exhibit 1.

14

15 (By Mr. Thorpe)

16 Q Before we begin, I would like to go over  
17 just a little bit of introduction and background so  
18 that we can understand each other during this  
19 deposition. And in doing so, I would like to  
09:20:38 20 establish a few ground rules.

21 One of the problems that we always have is  
22 that we tend to talk over each other. And I would  
23 like to have you agree with me that - to wait until  
24 I finish an answer - a question before you answer,  
09:20:58 25 and I'll hopefully try to be able to wait until you

09:20:58 1 finish your answer before I ask the next question.

2 If you have -- If you don't understand the  
3 question that I ask, please ask me to rephrase it.

4 And that way, at the end of the day, my questions

09:21:10 5 and your answers will jibe; and I will assume that  
6 you have correctly answered each of my questions.

7 Is that okay?

8 A Agreed.

9 Q If for any reason you want to take a

09:21:22 10 break, if you just want to take a break, if you need  
11 to confer with somebody, if you need to make a phone  
12 call, please ask me to - for a break; and we'll have  
13 no problem with that.

14 I would prefer you not try to take a break  
09:21:36 15 if we're in the middle of a question; but we can  
16 just arrange that whenever you need, okay?

17 A (Nodding affirmatively)

18 Q Even though we're videotaping today, it's  
19 important for you to give a verbal answer. A head  
09:21:50 20 shake up and down or left and right doesn't  
21 translate very well. And "uh-huh" and "huh-uh"  
22 doesn't translate very well. So, if you can give a  
23 verbal answer, that will make all of our lives a  
24 little easier.

09:22:04 25 A I understand.

09:22:04 1 Q Would you state your name for the record,  
2 please.  
3 A My name is Ronald John Lukas.  
4 Q And what is your Social Security number?  
09:22:10 5 A [DELETED]  
6 Q What is your date of birth?  
7 A 8-22, 1949.  
8 Q And could you give us your current  
9 business address.  
09:22:24 10 A I'm in the Division of Neurobiology at the  
11 Barrow, B-a-r-r-o-w, Neurological Institute in  
12 Phoenix, Arizona. The street address is 350 West  
13 Thomas Road.  
14 Q Is that institute associated with any  
09:22:42 15 hospitals here in Phoenix?  
16 A It's associated with St. Joseph's Hospital  
17 and Medical Center in Phoenix.  
18 Q How long have you been at that location?  
19 A 17 years.  
09:22:58 20 Q Did you go to Barrow's right after your  
21 post-doc training?  
22 A That's correct.  
23 Q Could you give us your current home  
24 address?  
09:23:10 25 A My home address is [DELETED]

09:23:14 1

[DELETED]

2

Q And how long have you been at that location?

3

4

A It will be ten years this January.

09:23:24 5

Q What is your telephone number at the Barrow's Institute?

6

7

A Area code (602) 406-3399.

8

Q Dr. Lukas, are you married?

9

A Yes, I am.

09:23:36 10

Q And what is your wife's name?

11

A My wife's name is Julie Southard Lukas.

12

Q How long have you been married?

13

A We've been married for 25 years.

14

Q And do you have any children?

09:23:48 15

A I have one child, Eric Tyler Lukas.

16

Q And how old is he?

17

A He will be 14 in January.

18

Q Have they gone back to school yet like they have in Texas?

19

09:24:02 20

A Today is the last day. Tomorrow school begins.

21

22

Q So, anticipation? Are you on any medications today, Dr. Lukas?

23

24

A No, I'm not.

09:24:12 25

Q And, so, that won't - there won't be

09:24:14 1 anything to interfere with the deposition?

2 A Not at all.

3 Q That's kind of a standard question we  
4 always ask. Dr. Lukas, have you ever given a  
09:24:22 5 deposition before?

6 A Yesterday.

7 Q And where was that deposition taken?

8 A The deposition was taken here at  
9 Bryan Cave.

09:24:34 10 Q And who was the Plaintiff in that case?  
11 Who took the deposition?

12 A The deposition was taken by - it was in  
13 the Engle case. The attorney who was here -- It was  
14 a telephone deposition. And the attorney was

09:24:54 15 John Hoag. And I'm not certain about his  
16 affiliation.

17 MR. SHELY: I think it was  
18 H-o-a-g. I don't have his  
19 information. But it was in the Engle  
09:25:02 20 case in Florida.

21 MR. OTT: Stanley Rosenblatt,  
22 P.C.

23 MR. SHELY: Oh, Stanley  
24 Rosenblatt; and he took it  
25 telephonically.

09:25:10 1 MR. THORPE: It was Stanley that  
2 took it?

3 MR. SHELBY: Well, it was an  
4 associate ---

5 MR. THORPE: Okay.

6 MR. SHELBY: --- an associate of  
7 Stanley Rosenblatt.

8 MR. OTT: H-o-a-g.

9  
10 (By Mr. Thorpe)

11 Q So, for the record, the attorney that  
12 took - took it was from Mr. Rosenblatt's law firm;  
13 is that correct?

14 A That's my understanding, yes.

09:25:2015 Q And this was in the Florida litigation?

16 A It was in the Engle case.

17 Q And what issues were -- Strike that.  
18 What issues were discussed during that  
19 deposition?

09:25:4020 A I think globally, the general range of  
21 what my perspective testimony might be in the Engle  
22 case.

23 Q And, so, yesterday's deposition was like  
24 today, concerning the CTR?

09:25:5825 A Principally focused on the Council for

09:26:00 1 Tobacco Research, yes.

2 Q Did you provide disclosure in that case,  
3 also?

4 A I'm not -- I don't understand what you  
09:26:10 5 mean by "disclosure."

6 Q There was - are requests for your  
7 deposition. You were to provide opinions, a report,  
8 your C.V., and also the documents that you based  
9 your opinions on. Was that provided to these  
09:26:28 10 attorneys in that case?

11 A Yes, it was.

12 Q Were these the same documents that you've  
13 provided to us for this deposition today?

14 A Well, the Curriculum Vitae certainly was.  
09:26:40 15 There may have been some phrases in the wording of  
16 the deposition that may have differed. I'm not  
17 certain, though, without having the opportunity to  
18 review and compare the documents.

19 Q Was your opinion statement the same?

09:26:54 20 A I'm not certain that it was the same. But  
21 essentially the content of it substantively probably  
22 was the same.

23 Q Did you go over that opinion statement  
24 during the deposition?

09:27:04 25 A No, we didn't go over that specifically.



09:27:20 1 Q Do you have a copy of that opinion today?

2 A I don't have a copy of that with me.

3 Q Could we be provided with a copy of that  
4 opinion?

09:27:30 5 MR. SHELY: Yes. If at a break  
6 would be convenient, I'll do it  
7 then. If you need it now, I can ---

8 MR. THORPE: At a break will be  
9 fine.

09:27:36 10 MR. SHELY: We'll provide that  
11 to you.

12

13 (By Mr. Thorpe)

14 Q How long did that telephone deposition  
09:27:42 15 take, Doctor?

16 A According to my recollection, I believe  
17 the deposition began around 9:30 and ended somewhere  
18 around 1:00 o'clock.

19 Q So, your experience with depositions is  
09:27:56 20 fairly fresh in your mind at this point?

21 A Yes, it ---

22 Q For better or worse?

23 A --- could be considered to be fresh,  
24 yes.

09:28:02 25 Q Have you ever given any testimony at

09:28:04 1 trial?

2 A No, I haven't.

3 Q Do you intend to testify in the case that  
4 you gave a deposition for yesterday?

09:28:12 5 A I will be prepared to testify if I am  
6 asked to, yes.

7 Q Do you know whether you are going to be  
8 listed and be called by the Defendants in that  
9 case?

09:28:22 10 A I'm not aware of those plans at the  
11 moment.

12 Q But if you're called to testify, you will  
13 go to Florida and testify?

14 A Yes, I will.

09:28:38 15 Q Do you know the exact name of that case  
16 that you testified in yesterday?

17 A It's the Engle case.

18 Q I guess we'll get that from the opinion  
19 report?

09:28:52 20 MR. SHELLEY: It will - it will --

21 We'll provide you with the caption.

22 I only know it as the Engle case  
23 myself. So ---

24 MR. THORPE: Okay.

25

1 (By Mr. Thorpe)

2 Q Have you ever testified before any  
3 legislative body?

4 A No, I have not.

09:29:10 5 Q Have you ever been asked to testify and  
6 not testify?

7 A No, I have not.

8 Q Have you ever been asked by any  
9 legislative body to consult in any type of  
09:29:36 10 scientific issues, other than study sections or  
11 grants or something like that?

12 A No, I have not.

13 Q Dr. Lukas, in preparation for this  
14 deposition today, how did you prepare?

09:30:02 15 A Well, in some ways, my preparation for  
16 this case came out of my normal functions as a  
17 research scientist in that I've been reviewing the  
18 literature and been familiar with the literature,  
19 scientific literature, for all of my professional  
09:30:20 20 career, particularly with a focus on nicotine and  
21 receptors for nicotine in the brain and body.

22 Q Is that the only literature that you  
23 reviewed, was the area that you're particularly  
24 interested in?

09:30:32 25 A The only -- Do you mean the only

09:30:36 1 literature in regard to preparing for this  
2 deposition?

3 Q That's correct.

4 A No. There are additional materials that I  
09:30:44 5 reviewed. They included annual reports from the  
6 Council for Tobacco Research, some of which I had  
7 already had in my possession as a grantee of the  
8 Council for Tobacco Research, the rest of which were  
9 provided to me by the attorneys here at Bryan Cave,  
09:31:04 10 who also provided me with a series of documents,  
11 including affidavits from Drs. Glenn, Lisanti, and  
12 McAllister, relating to various cases currently  
13 being heard across the Country.

14 Q Do you personally know any of those three  
09:31:22 15 people whose affidavits you have reviewed?

16 A I have not at the moment met any of them.  
17 I have had some conversations recently with  
18 Dr. McAllister, as he has planned to come and - for  
19 a site visit in Phoenix in late September, evidently  
09:31:36 20 to follow up on progress in the grant for which we  
21 are getting funding currently from the Council for  
22 Tobacco Research.

23 Q In your conversations with Dr. McAllister,  
24 did you discuss any of the litigation that's ongoing  
09:31:50 25 against CTR?

09:31:52 1 A No, I did not.

2 Q Did you discuss any of the litigation  
3 ongoing against the tobacco industry?

4 A No, I did not.

09:31:58 5 Q And, so, your only conversation with  
6 Dr. McAllister at that time was regarding your grant  
7 from CTR; is that correct?

8 A Was the grant and his plans - and the  
9 plans, my availability, his availability, when it  
09:32:1010 might be possible for him to come and visit.

11 Q What is Dr. McAllister's current  
12 position?

13 A My recollection is that he is the current  
14 Scientific Director.

09:32:2415 Q Do you know how long he has been -- Strike  
16 that.

17 Scientific Director of the Council ---

18 A Of the Council for ---

19 Q --- for Tobacco Research?

09:32:3420 A Scientific Director of the Council for  
21 Tobacco Research.

22 Q And, again, Doctor, we'll try to ask the  
23 question, answer the question. We're starting to go  
24 over each other.

09:32:4225 Do you know how long he has been this

09:32:46 1 Scientific Director?

2 A According to my recollection, maybe over  
3 the last four years or so. I'm not certain. I'll  
4 bet that information is in some of the CTR  
09:33:00 5 documents.

6 Q And you said that attorneys provided you  
7 with documents to review; is that correct?

8 A That's correct.

9 Q What documents were you provided?

09:33:14 10 A Among the documents are the affidavits, as  
11 I mentioned before, by Dr. Glenn; Dr. McAllister,  
12 and Dr. Lisanti. I don't expressly remember which  
13 complaints were referenced in those - in those  
14 affidavits.

09:33:36 15 I also have seen disclosure statements  
16 from Dr. Shields and Dr. Oparil and a transcript of  
17 a deposition of Dr. Oparil in one of the other  
18 cases.

19 Q Were you also shown any of the minutes or  
09:34:02 20 any of the correspondence emanating from the  
21 Scientific Advisory Board meetings?

22 A I believe in the affidavit of Dr. Lisanti  
23 there were a few copies of minutes in that  
24 affidavit.

09:34:22 25 Q In the annual reports, have you also seen

09:34:26 1 the information regarding who was - who was funded  
2 and who was not funded?

3 A Yes. All the information that was  
4 available in the annual reports, I have become  
09:34:36 5 somewhat familiar with.

6 Q Do you know what deposition you reviewed  
7 on Dr. Oparil?

8 A I don't recall precisely. Perhaps the  
9 counsel here for - at Bryan Cave would recall that.

09:35:04 10 Q Well, I need you to answer because these  
11 questions are directed to you rather than to your  
12 attorneys.

13 A At the moment, I don't remember in which  
14 case.

09:35:12 15 Q Do you know whether the State of Texas was  
16 the Plaintiff in that case?

17 A That's a possibility. It may have been  
18 the State of Texas case.

19 Q Was this a recent deposition of  
09:35:22 20 Dr. Oparil?

21 A Well, I believe it's recent in that it  
22 happened sometime within the last half year or so.  
23 But I don't recall the precise date that the  
24 deposition was filed.

09:35:38 25 Q Did you read the deposition in total?

09:35:40 1 A I skimmed the deposition.

2 Q So, you're familiar with the answers that

3 she gave to the questions that were asked her?

4 A I don't know that I would characterize

09:35:50 5 myself as being very familiar with them. But I

6 understand the general nature of the questions as

7 well as the substance of her answers to those

8 questions, yes.

9 Q Did you also look at the exhibits that

09:36:0410 were attached to that deposition?

11 A No, I have not.

12 Q Are you basing any of your opinions today

13 on any of the information that you acquired from

14 reading of the deposition of Dr. Oparil?

09:36:1815 A No, I am not.

16 Q At the time of trial, do you intend to use

17 Dr. Oparil's answers in formulating or modifying any

18 of your opinions?

19 A No, I am not planning to use those. My

09:36:3820 opinions will be formulated by - based on my own

21 survey of documents as well as my knowledge in the

22 field.

23 Q And if at some time you do wish to modify

24 your opinions based on the deposition that you read,

09:36:5425 you will let your attorneys know; is that correct?



09:36:58 1 A Oh, yes, I would certainly let them know.

2 Q What other documents were you provided by  
3 the attorneys in this case?

4 A Other than the ones that I've already  
09:37:06 5 mentioned?

6 Q Yes.

7 A At the moment there is - there aren't any  
8 other documents that I recall reviewing.

9 Q Were you provided any memoranda between  
09:37:20 10 members of the CTR and the tobacco industry  
11 regarding the function of the CTR?

12 A I believe in Dr. Lisanti's affidavit,  
13 there may have been some documents relating to those  
14 kinds of activities.

09:37:40 15 Q Were you provided any correspondence or  
16 memorandum between members of the Scientific  
17 Advisory Board regarding the function of the CTR?

18 A I seem to recall that there may have been  
19 a document or two along those lines, as well in the  
09:37:56 20 Lisanti affidavit.

21 Q The documents that - regarding memorandum  
22 or letters were all attached to the affidavits; is  
23 that correct?

24 A They are integral to the affidavit, yes.

09:38:10 25 Q And you have not reviewed any

09:38:16 1 correspondence, memorandum, or interactions by any  
2 type of documentation between CTR and the tobacco  
3 industry other than those attached to these  
4 affidavits?

09:38:24 5 A No. I don't recall seeing any such  
6 documents outside of those that were contained in  
7 the affidavit.

8 Q Who were the attorneys who provided you  
9 the information, these documents?

09:38:40 10 A Mr. Rodney Ott and Mr. Robert Shely here  
11 at Bryan Cave in Phoenix.

12 Q Other than the documents that you were  
13 provided by those two attorneys, have you received  
14 any other information or any other documents from  
09:39:00 15 any other lawyers associated with this litigation?

16 A There have - there were two occasions.  
17 There are two instances where I have interacted with  
18 attorneys at Debevoise & Plimpton, Dennis Hrinitzky  
19 in a meeting in New York City back in May, I  
09:39:30 20 believe, and Ann Cohen in a meeting here about a  
21 week ago - here in Phoenix about a week ago.

22 Q Neither of those attorneys are present  
23 today; is that correct?

24 A No, they are not.

09:39:38 25 Q Do you know who these attorneys

09:39:42 1 represent?

2 A The attorneys at Debevoise & Plimpton, my  
3 understanding is that they represent the Council for  
4 Tobacco Research, as well.

09:39:54 5 Q But they are not here for this deposition  
6 today; is that correct?

7 A No, they aren't.

8 Q Do you know why?

9 A Oh, no. I don't understand the inner  
09:40:08 10 workings of how the attorneys are handling the  
11 case.

12 Q Did any of the lawyers from that firm  
13 provide you any documents for this - preparation for  
14 this deposition?

09:40:24 15 A To my recollection, no. In each case,  
16 when I have spoken with the attorneys from  
17 Debevoise & Plimpton, either Mr. Ott - actually both  
18 Mr. Ott and Mr. Shely were present, as well.

19 Q In preparation for your deposition  
09:40:46 20 yesterday, were you provided documents other than  
21 those that you've disclosed today?

22 A Not to my recollection.

23 Q So, your deposition yesterday was also  
24 based on these same documents that you've been  
09:40:58 25 provided by the lawyers for the Defendants in this

09:41:00 1 case?

2 A That's correct.

3 Q Do you know if the lawyers for Bryan Cave  
4 also represent CTR in this litigation?

09:41:14 5 A That is my understanding, yes.

6 Q So, both firms are represented by ---

7 A That is my understanding.

8 Q Just for the ladies and gentlemen of the  
9 Jury, we've said "CTR" a number of times. Can you  
09:41:40 10 tell us what "CTR" is the abbreviation for.

11 A CTR is the Council for Tobacco Research,  
12 which is a non-profit organization that is involved  
13 in providing research funding for independent  
14 scientific research.

09:41:58 15 My understanding, also, is that that is  
16 the second incarnation of the name of the  
17 organization. The organization was initially called  
18 the Tobacco Industry Research Council.

19 Q For a shortened version, we'll continue to  
09:42:14 20 refer to them as the CTR. Is that okay with you?

21 A That is agreeable.

22 Q Okay. In preparation for this deposition  
23 and also in preparation for the deposition you gave  
24 yesterday, what attorneys have you met with, the  
09:42:28 25 names of these attorneys?

09:42:32 1 A The names, as I have mentioned already,  
2 are Rodney Ott and Robert Shely of Bryan Cave,  
3 Dennis Hrinitzky and Ann Cohen of Debevoise &  
4 Plimpton.

09:42:44 5 Q And each time you've met with the  
6 attorneys, have all of those attorneys been present  
7 other than today?

8 A No. My -- According to my recollection,  
9 every - in every meeting, Mr. Rodney Ott has been  
09:43:04 10 present. Robert Shely has been present in the  
11 majority of those interactions. And, again, it's  
12 only on one occasion that I had interactions with  
13 Ann Cohen and Dennis Hrinitzky.

14 Q When did you first meet with the attorneys  
09:43:16 15 in this case?

16 A My recollection is that I had - first had  
17 discussions with Mr. Ott and Mr. Shely in March of  
18 1997.

19 Q How many times have you met with your  
09:43:38 20 attorneys - with these attorneys or any other  
21 attorneys associated with this litigation?

22 A That's something that I haven't committed  
23 to memory. I would guess that it is less than a  
24 dozen times that I have met with any attorneys  
09:43:58 25 involved in the case - in these cases.

09:44:00 1

Q Is it close to a dozen?

2

A I wouldn't be surprised if it was quite close to it, yes.

3

4

Q Do you have either a qualified guess or an

09:44:24 5

estimation of what dates there were that you met

6

with these attorneys and who was present at each of these meetings?

7

8

A I could -- In general terms, I could give

9

you an idea of the months in which we met and who

09:44:46 10

was present. But, again, there was one meeting in

11

May in New York City with the - Dennis Hrinitzky at

12

Debevoise &amp; Plimpton.

13

There was one meeting actually over two

14

days with Ann Cohen from Debevoise &amp; Plimpton last

09:45:06 15

week, last Tuesday and Wednesday, which would have

16

been the 5th and 6th of August of 1997.

17

Q Was that here?

18

A That was here at Bryan Cave. And there

19

have been - there have been perhaps another half -

09:45:28 20

half dozen meetings with Mr. Ott and/or Mr. Shely.

21

Q And at each of these meetings, what did

22

you discuss, to your best recollection?

23

A Well, to the best of my recollection, the

24

initial meetings with Mr. Ott and Mr. Shely were

09:45:44 25

exploratory sessions to see whether I would be

09:45:48 1 interested in possibly testifying on behalf of the  
2 Council for Tobacco Research in various  
3 litigations.

4 And as I made a commitment to do that,  
09:46:04 5 they have provided me progressively with documents  
6 that are relevant to the cases.

7 Q And that was what initially occurred  
8 during the March, 1997 meeting with the Bryan Cave  
9 lawyers?

09:46:20 10 A I believe we had two or three meetings  
11 and/or phone conversations that led to the time when  
12 I committed to acting in association with the  
13 attorneys here at Bryan Cave to help defend the  
14 Council for Tobacco Research.

09:46:40 15 Q What did they tell you you'd be asked to  
16 testify about?

17 A I'm sorry. Could you ---

18 Q What areas did they ask - did they tell  
19 you that they wanted you to testify?

09:46:52 20 A Well, the principal issue was my  
21 interactions with the Council for Tobacco Research,  
22 acting in some extent as a factual witness, if you  
23 will, relaying the facts about my interactions with  
24 individuals of the Council for Tobacco Research.

09:47:14 25 But, in addition, to - they asked me if

09:47:14 1 I'd be - would be willing to act as an expert  
2 witness, principally concerning the operations of  
3 grant-giving organizations like the Council for  
4 Tobacco Research, judging how those functions as  
09:47:32 5 effected through the Council for Tobacco Research  
6 compared or contrasted with similar functions in  
7 other grant-giving organizations.

8 Q And you are a grantee of the CTR?

9 A Yes, I am. I am currently a grantee of  
10 the CTR.

11 Q And you've been a grantee for many years;  
12 is that correct?

13 A And previous - there was a previous --  
14 Previously there were two three-year grant  
09:47:52 15 applications that were funded by the CTR, yes.

16 Q And on a relative scale, you've been  
17 funded fairly well by the CTR; is that correct?

18 A Over the 17 years that I have been at the  
19 Barrow Neurological Institute, 7 - in 7 of those  
09:48:10 20 years, I've gotten funding from the Council for  
21 Tobacco Research.

22 Q What did you discuss with Ms. Cohen with  
23 you met with her in New York City in May?

24 A I didn't meet with Ms. Cohen in May in  
09:48:22 25 New York City.



09:48:22 1 Q Who did you meet with?

2 A There, Mr. Shely, Mr. Ott, and I met with  
3 Dennis Hrinitzky at Debevoise & Plimpton.

4 Q What was discussed at that meeting?

09:48:38 5 A At that meeting, that was a stage when I  
6 was still undergoing discovery. And it was a very  
7 valuable meeting for me in that several issues came  
8 up regarding some operations of the Council for  
9 Tobacco Research about which I had had a small  
09:49:00 10 amount of information, such as the special projects  
11 and the contract work.

12 Q What else was discussed at that meeting?

13 A Again, some issues relating to the general  
14 substance of my proposed testimony regarding the  
09:49:26 15 functions of the Council for Tobacco Research, as  
16 well as how my interactions with the Council have  
17 gone over the years.

18 In addition, it was very flattering to  
19 have them ask questions about my research program,  
09:49:42 20 as well. And, so, it was a form where I was able to  
21 talk about some scientific issues with them and a  
22 form where I was able to not just learn from them  
23 but also to tell them a little bit about how my  
24 research relates to advances in the field.

09:50:02 25 Q You have not been a special projects

09:50:04 1 grantee; is that correct?

2 A No, I have not.

3 Q You also said that you met for two days, I  
4 think you said with Ms. Cohen here in Phoenix?

09:50:16 5 A With Ms. Cohen here in Phoenix, yes.

6 Q What was discussed at that time?

7 A There we continued to discuss some of the  
8 functions of the Council for Tobacco Research. And  
9 Ms. Cohen helped in preparing me for the kinds of  
09:50:36 10 questioning that I might be expected to encounter  
11 during the deposition and during the trial.

12 Q Were you being coached in terms of what  
13 type of questions that I might ask today?

14 A I don't know that I would characterize it  
09:50:54 15 as "being coached." All throughout, all of the  
16 attorneys involved have asked me to simply answer  
17 questions honestly and openly. The - it was more of  
18 a preparation, since I -- I appreciate it very much  
19 since I have not had experience before in this sort  
09:51:18 20 of experience.

21 It was very useful for me to understand  
22 the kinds of questions that might be raised within  
23 or beyond the areas of my expertise.

24 Q Were you being prepared for both this  
09:51:34 25 deposition and the deposition that was taken

09:51:36 1 yesterday in those meetings?

2 A I think the preparations have been very  
3 generic and seamless, yes. So, I think that it  
4 would be fair to say that the preparations concerned  
09:51:48 5 both depositions.

6 Q When you met with Ms. Cohen, you said last  
7 week?

8 A That's correct.

9 Q Had you read Dr. Oparil's deposition at  
10 that time?

11 A I did not read it at that time, no.

12 Q You read -- When were you provided that  
13 deposition?

14 A That deposition was provided to me in the  
09:52:06 15 meetings last week, either last Tuesday, the 5th of  
16 August, or last Wednesday, the 6th of August. I  
17 don't recall exactly when I saw that first - the  
18 first time.

19 Q This is the same time you met with  
09:52:18 20 Ms. Cohen?

21 A That's correct.

22 Q Who provided you that deposition?

23 A I'm not sure who actually handed it to  
24 me, but it was provided to me while I was here at  
09:52:28 25 Bryan Cave.

09:52:30 1 Q Other than the deposition that you - that  
2 was taken yesterday, when was the last time that you  
3 met with the attorneys in this case?

4 A I have been away on a trip back East.  
09:52:54 5 And, so, my recollection is that aside from a phone  
6 conversation or two along the way, just principally  
7 phone call conversations with Rodney Ott,  
8 scheduling, planning for scheduling, looking at  
9 contingencies for scheduling of depositions and  
09:53:10 10 preparatory meetings, I don't recall having a  
11 meeting more recently than early June or May. I'd  
12 have to look at my logbook, my date book to be  
13 certain about that.

14 Q So, your preparation for this deposition  
09:53:26 15 was, in essence, last week in the two-day meeting;  
16 is that correct?

17 A That was an element, yes, that that --  
18 Over those two days, we did prepare for this  
19 deposition. But I would characterize all my  
09:53:42 20 meetings with the attorneys as well as all the time  
21 that I've spent privately reviewing documents as  
22 being elements preparing for the deposition and  
23 providing the basis for the opinions that I plan to  
24 render.

09:53:56 25 Q Other than the documents that were

09:53:58 1 provided to you by the attorneys in this case and in  
2 reviewing some of the literature, as you stated  
3 earlier, did you do any of your own research and  
4 collect any documents regarding the testimony that  
09:54:12 5 you were going to give today?

6 A Well, it's hard to distinguish because  
7 often the documents that I would review that would  
8 be relevant to this case happen also to be relevant  
9 to my own scientific research.

09:54:30 10 And there are -- So, over the period of  
11 time - certainly over the period of time since March  
12 when I was first contacted by Bryan Cave, there is  
13 probably some overlap in the kinds of documents - in  
14 the information in the kinds of documents that I've  
09:54:52 15 reviewed, overlap between my pursuit of scientific  
16 information as well as finding information that  
17 would be relevant in these cases, particularly  
18 helping to form the basis of my opinion.

19 Q In the information that you gathered  
09:55:06 20 personally, have you provided those documents to the  
21 attorneys in this case?

22 A No, I haven't. They're quite extensive.  
23 They basically would involve lots of documents in  
24 the library at St. Joseph's Hospital as well as  
09:55:22 25 files and books that I have in my office.

09:55:26 1 Q Do you have a list of those documents that  
2 you reviewed for this deposition?

3 A No, I don't have one at the moment.

4 Q Could you provide me with a list of those  
09:55:36 5 documents?

6 A I could provide -- I certainly could  
7 provide a list of those documents. It would be  
8 quite a task to put all that together.

9 Q Well, these are documents that you've  
09:55:48 10 testified that you've used in formulating your  
11 testimony today. So, it's necessary that we have at  
12 least a list of those documents so that we can  
13 prepare for trial.

14 So, if you would provide a list of those  
09:56:04 15 to your attorneys, they can then forward those lists  
16 to us.

17 A All right.

18 MR. SHELY: Counsel, can I just  
19 make one clarification? It's just a  
09:56:10 20 colloquialism. But you've been  
21 referring to us as "his attorneys."  
22 And we're counsel for CTR. And I  
23 don't want the record to reflect that  
24 we're counsel for Dr. Lukas  
09:56:20 25 personally.

1 MR. THORPE: I understand that.  
2 In fact, that was actually going to  
3 be my next question, if he has a  
4 personal attorney in this case.  
5

6 (By Mr. Thorpe)

7 Q And that will be my next question. Are  
8 the attorneys that are present today representing  
9 you, or do they represent the CTR in this  
09:56:3410 litigation?

11 A The attorneys that are present in this  
12 case represent the Council for Tobacco Research.

13 Q And have you consulted with a personal -  
14 your personal attorney or a personal attorney in  
09:56:4615 preparation for this deposition?

16 A No, I have not.

17 Q Could you tell us what the circumstances  
18 were surrounding your being asked to be a fact and  
19 expert witness in this case?

09:56:5620 A I'm not sure I understand. Could you  
21 please clarify?

22 Q How did - how did the attorneys identify  
23 you and how did it come about that they asked you to  
24 become a witness in this litigation?

09:57:1025 A I'm not certain about what - what led them

09:57:18 1 to contact me. I'm not precisely certain about  
2 that. But I imagine somewhere along the line, the  
3 fact that I might have been - that I was in a  
4 position to be a factual witness, at least, about  
09:57:34 5 interaction with the Council for Tobacco Research  
6 maybe played a role in the selection of me as a  
7 candidate to testify in the CTR's behalf.

8 Q And some of those might have been the fact  
9 that you are a CTR grantee; is that correct?

09:57:50 10 A I would imagine that would have been a  
11 factor, yes.

12 Q It might also be convenient that you're  
13 here in Phoenix?

14 A Perhaps. I'm not in a position to state  
09:57:58 15 an opinion about that.

16 Q Okay.

17 MR. THORPE: Could we take a  
18 quick break?

19 MR. OTT: Fine.

09:58:12 20 MR. SHELY: Sure.

21

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25

(AT THIS TIME A BRIEF RECESS WAS  
TAKEN, AND THE PROCEEDINGS THEREAFTER  
RESUMED AS FOLLOWS:)



1 (By Mr. Thorpe)

2 Q Dr. Lukas, in your original meeting with  
3 the attorneys in this case - I believe you testified  
4 it was back in March of 1997 - at that time, were  
10:08:46 5 you informed of the names of the other individuals  
6 who were going to be expert witnesses in this case?

7 A No, I was not.

8 Q When did you first learn of Dr. Oparil and  
9 her role in this litigation?

10:09:04 10 A Right. If my recollection is correct, I  
11 believe it was just last week.

12 Q And that was the time that you were  
13 provided with her deposition; is that correct?

14 A That is correct.

10:09:36 15 Q At any of the meetings that you've had  
16 with the attorneys in this case, have any of the  
17 other expert witnesses for CTR been discussed?

18 A Other than the meeting last week, we -  
19 actually, there hasn't been a discussion of the  
10:09:54 20 expert witnesses. I was provided with the

21 deposition from - of Dr. Oparil and asked just to  
22 look at that.

23 Q Do you know who Dr. Shields is?

24 A Dr. Shields, my understanding, is also  
10:10:12 25 another expert witness.

10:10:16 1 Q And when did you learn he was also an  
2 expert witness?

3 A I learned it - that, I believe, last week,  
4 as well.

10:10:22 5 Q Were you provided any of the information  
6 regarding Dr. Shield's proposed testimony?

7 A There - I didn't see any - anything  
8 regarding his deposition, but I have seen the  
9 disclosure documents from Dr. Oparil and

10:10:42 10 Dr. Shields. And that played a role in formulating  
11 the disclosure statement that Bryan Cave put  
12 together concerning my area of testimony.

13 Q So, when did you first see these  
14 disclosure statements of either/or Dr. Oparil and  
10:11:20 15 Dr. Shields?

16 A My recollection is that I saw Dr. Shields'  
17 disclosure statement last week. I don't recall  
18 precisely when I first saw Dr. Oparil's disclosure  
19 statement. But I would imagine it would have  
10:11:40 20 preceded the meeting - the meetings last week here  
21 at Bryan Cave.

22 Q Prior to this meeting, had your disclosure  
23 statement been prepared?

24 A I don't remember exactly. I know that we  
10:11:56 25 had been - discussed it, and we had been -- I knew

10:12:04 1 that we needed to prepare it and that at some point,  
2 there was some preliminary discussions about what  
3 form that would take.

4 Q When did you first see the disclosure  
10:12:14 5 statement that was provided to us regarding your  
6 opinions?

7 A It was sometime - sometime within the last  
8 two weeks. I don't remember exactly when I - when I  
9 saw it.

10:12:28 10 Q Was it prior to or after your meeting with  
11 Ms. Cohen and the other attorneys in this case?

12 A I don't recall whether it was before or  
13 after the meetings with Ms. Cohen.

14 Q Did you agree to become an expert witness  
10:12:52 15 in this case in March of 1997?

16 A I think at some point - some point in  
17 March in my discussions with Mr. Ott and Mr. Shely,  
18 that's - that's when I committed to become a witness  
19 in this case.

10:13:08 20 Q And these were the lawyers who have hired  
21 you to be an expert witness in this case?

22 A I don't know that these are the attorneys  
23 who have hired me. Again, I'm not an expert in the  
24 detailed workings about who I'm actually working  
10:13:28 25 for.

10:13:30 1 Q Have you provided any of the attorneys  
2 with a list of the amount of work that you've done  
3 so far?  
4 A Yes. I have submitted invoices to  
10:13:46 5 Bryan Cave and to Debevoise & Plimpton for work that  
6 I have done in relationship to this case - these  
7 cases.  
8 Q So, have both firms paid you; or has just  
9 one firm paid you?  
10:14:02 10 A The checks that I have received have been  
11 from Debevoise & Plimpton.  
12 Q What is your hourly fee for this - for  
13 your role as an expert in this case?  
14 A Uh-huh. Through - through discovery, I  
10:14:32 15 have been charging \$135 an hour. And for the time  
16 spent filing the deposition, my fee is \$270 an  
17 hour.  
18 Q So, your fee for deposition is twice your  
19 review ---  
10:14:48 20 A That's right.  
21 Q --- charge? And how much will you charge  
22 for your trial testimony?  
23 A We're still discussing that. But I  
24 would - I think a figure that we have discussed is  
10:15:04 25 \$500 an hour for trial testimony.

10:15:14 1 Q Will you also be paid for your travel and  
2 expenses?

3 A That is my understanding, yes.

4 Q Have you been paid for your travel and  
10:15:22 5 expenses so far in this case?

6 A Yes, I have. I was reimbursed for the  
7 trip to New York City.

8 Q Are you doing separate billings for  
9 this case as well as the case you testified in  
10:15:36 10 yesterday?

11 A No. All of my billings have been in  
12 relation to the integrated preparation on my part  
13 for these cases.

14 Q So, your preparation to date has been for  
10:15:50 15 both of these cases; is that correct?

16 A Yes, I would say that that's true.

17 Q Have you been asked to give testimony in  
18 any other cases, other than the two that we've  
19 discussed already?

10:16:16 20 A I have also agreed to work with the  
21 attorneys at Bryan Cave in the State of Arizona  
22 case.

23 Q In preparation for that case, have you  
24 been provided with documents other than those that  
10:16:42 25 you've already discussed with us today?

10:16:42 1 A The only other document relevant to that  
2 case is the - a copy of the complaint itself.

3 Q Have you also seen the complaint in the  
4 Texas case?

10:16:58 5 A Yes, I have reviewed the complaint in the  
6 Texas case.

7 Q We'll go back to that a little later.  
8 Dr. Lukas, how much have you been paid for your work  
9 to date on this case and the other cases that you're  
10:17:28 10 involved with?

11 A To date, I would estimate that I have been  
12 paid about \$6,000 for about somewhere between 40 and  
13 50 hours of work.

14 Q Other than for the deposition today, is -  
10:17:58 15 have you been paid -- Strike that.

16 Other than for the deposition today, are  
17 you current on the amount of money that you've  
18 earned in this case?

19 A No, I -- No, I'm not.

10:18:14 20 Q How many more hours have you put in since  
21 your 6,000-dollar payment?

22 A I think I haven't yet billed for anything  
23 since - that would include the work done over last  
24 week, which would be maybe another 12 hours or so,  
10:18:38 25 and the time in the deposition yesterday, which

10:18:42 1 would be about 4 hours.

2 Q Have you kept records of the amount of  
3 time that you've spent in this case?

4 A Yes, I have.

10:18:56 5 Q And have you provided those records to the  
6 attorneys in this case?

7 A I have transcribed those, my records, into  
8 invoices that were provided to Debevoise & Plimpton  
9 and Bryan Cave.

10:19:12 10 Q But you've kept notes and records separate  
11 from those invoices; is that correct?

12 A Yes, I have, in my personal date book.

13 Q But those have not been provided to the  
14 attorneys; is that correct?

10:19:24 15 A No, they haven't.

16 Q Could you provide them copies with - of  
17 those notes and records?

18 A If I was asked to, yes, I could.

19 Q I would like to ask you to at this time.

10:19:40 20 A I don't have them with me.

21 Q That's all right. You can provide those  
22 with the other records that we have requested so  
23 far.

24 A All right.

10:19:48 25 MR. SHELY: Counsel, we will

10:19:52 1

coordinate with you on that. I  
would like Dr. Lukas to have an  
opportunity to redact personal and  
other professional issues in those  
records.

10:19:58 5

6

MR. THORPE: I have no - I have  
no problems with that, and I expected  
that anyway.

7

8

9

MR. SHELY: Okay.

10:20:10 10

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MR. THORPE: With the  
stipulation that redacting out - not  
redacting out anything that is  
involved with this litigation.

10:20:18 15

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(By Mr. Thorpe)

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Q Dr. Lukas, do you expect to be called to  
trial in the Texas case by the attorneys for CTR?

A If the case proceeds to trial, I would  
expect to be called there, yes.

Q And if called, you will appear; is that  
correct?

10:20:48 25

A Yes, I will.



10:21:08 1 Q Dr. Lukas, in the materials that were  
2 provided to us in the court-ordered disclosure, you  
3 included a copy of your Curriculum Vitae; is that  
4 correct?

10:21:18 5 A That is correct.

6 Q The Curriculum Vitae that was provided to  
7 us, I think was provided on 8-4 of '97. Is your  
8 C.V. up to date?

9 A Yes, I believe it is.

10:21:42 10 Q There has been nothing added or  
11 subtracted; is that correct?

12 A No.

13 Q And it's complete and accurate, as far as  
14 you know?

10:21:48 15 A Yes.

16 Q You said that you are currently at the  
17 Barrows Neurologic Institute; is that correct?

18 A "Barrow," no "s."

19 Q Barrow? Is the Barrow Neurologic  
10:22:10 20 Institute a private institute?

21 A It is -- Yes, it is a private institute.  
22 It is affiliated with St. Joseph's Hospital and  
23 Medical Center, which is a non-profit healthcare  
24 organization.

10:22:26 25 Q But it's not a formal extension of any of

10:22:28 1 the universities here in Arizona?

2 A No. We have no formal ties, although  
3 there are many investigators and physicians who have  
4 ties with the universities.

10:22:48 5 Q The individuals who are there in a  
6 professional capacity, they're not professors of the  
7 Barrow Neurologic Institute, correct?

8 A Well, there's an issue of semantics  
9 involved in designating titles to individuals at the  
10:23:10 10 Barrow Institute. For example, in my own division,  
11 we have three classifications of investigators,  
12 senior staff scientists, associate staff scientists,  
13 and staff scientists. But, in essence, those  
14 positions are equivalent to full professor,  
10:23:30 15 associate professor, and assistant professor at a  
16 university or medical school.

17 Q But not as professors of any of the  
18 universities, correct?

19 A The Barrow Neurological Institute doesn't  
10:23:42 20 give titles using the phrase "professor" nor does it  
21 imply any ranking in a university.

22 Q And I understand that. Are many of the  
23 individuals who work at the Barrow Neurologic  
24 Institute also affiliated with either the University  
10:24:08 25 of Arizona or A.S.U.?

10:24:10 1 A Yes, they are.

2 Q What is your principal role at the Barrow

3 Neurologic Institute?

4 A My principal role is an independent

10:24:34 5 scientific investigator. I conduct research of my

6 own design, funded in part - well, the research

7 itself is funded through grants that I obtain.

8 Q Is your salary at the Barrow tied to your

9 granting - to your grants, or are you salaried and

10:25:06 10 supplemented by the grants?

11 A It's a complex formula subject to change

12 at any moment. But, in principal, half of the

13 salary is of the principal investigators; that is,

14 scientists who have the ranking of senior staff

10:25:24 15 scientist, associate staff scientist, or staff

16 scientist. Half of their salaries is covered under

17 an endowment through the Barrow Neurological

18 Foundation. We are asked to get the other one-half

19 of our salaries from research grants.

10:25:46 20 Q Is that a relatively recent move, or has

21 that been the situation since you've been at

22 Barrow?

23 A That has essentially been the situation

24 since the mid 1980's. Actually that - that -

10:26:06 25 actually since I was at the Barrow. In practice,

10:26:08 1 there happened to be enough money to cover full  
2 salaries until about the mid 1980's in the  
3 endowment.

4 Q This is - also coincides with the time  
10:26:18 5 when NIH funding and other funding sort of dried up  
6 somewhat?

7 A Regrettably, yes.

8 Q And, in fact, many even universities have  
9 gone to the same type of formulation of part of your  
10:26:36 10 salary being paid by the university and the other  
11 part you have to supplement?

12 A That's correct.

13 Q In situations where, for some unknown  
14 reason or known but not able to compensate for, if  
10:26:52 15 one of the staff scientists or scientists at Barrow  
16 loses their funding, does the Barrow pick up their  
17 salary?

18 A The provisions are not at all formal. And  
19 fortunately, it has been a very benevolent  
10:27:12 20 association between the administrators at the  
21 Institute and hospital and the investigators in my  
22 division.

23 And by the way, that - again, that  
24 circumstance applies only to the division of  
10:27:24 25 neurobiology. There are different circumstances

10:27:26 1 regarding salary and compensation across the other  
2 divisions.

3 So, we've been fortunate that, first of  
4 all, that for the most part, most of the  
10:27:36 5 investigators in the division have had steady  
6 funding; so, it hasn't been an issue.

7 But when individuals lose the grant  
8 funding, that could jeopardize the other half of  
9 their salary, the Institute has, to my  
10:27:52 10 understanding, always come through and provided  
11 support.

12 Q But, in essence, grant - continued grant  
13 funding is very important for the individual  
14 investigators ---

10:28:02 15 A That's correct.

16 Q --- to maintain their salary?

17 A That's right.

18 Q Your position is as a - I think you said a  
19 senior staff scientist; is that correct?

10:28:26 20 A That is correct.

21 Q And your actual role is, as you stated, is  
22 an independent scientific investigator; is that  
23 correct?

24 A That is correct.

10:28:36 25 Q You're not a clinician; is that correct?

10:28:38 1 A I'm not a clinician. I'm not trained as a  
2 physician, although ---

3 Q So, you ---

4 A --- there are some other responsibilities  
10:28:46 5 that I have taken on at the hospital that do involve  
6 some clinical work.

7 Q And what is that, Doctor?

8 A I also run a research and development  
9 wing, if you will, of the clinical pathology  
10:29:00 10 laboratory. And over the years, we have done a  
11 variety of different kinds of immunologically-based  
12 assays for tumor markers, for neuroendocrine  
13 markers, for autoimmunity markers.

14 The results from our lab are conveyed to  
10:29:22 15 physicians who are treating patients who have or are  
16 suspected to have different diseases. And the  
17 results that we obtain aid in the diagnosis and  
18 treatment of those maladies.

19 Q And that reflects your entry as the  
10:29:36 20 director of the clinical assay developmental  
21 laboratory?

22 A That's correct.

23 Q Do you also get a separate salary for your  
24 role as the director of that lab?

10:29:46 25 A Well, that has been subject to change over

10:29:48 1 the years, as well. For a period of time, the  
2 revenues through that lab were adequate to cover,  
3 for example, the second half of my salary.

4 Currently, that is - currently, that isn't  
10:30:08 5 the case. The revenues are down. And, so, in order  
6 to keep the lab functioning, I'm recovering the  
7 other half of my salary from other sources.

8 Q The research you conduct at the Barrow  
9 Neurologic Institute, is any of the research that  
10:30:26 10 you personally do involved with cancer at all?

11 A It is not an immediate focus of our  
12 research program.

13 Q Does any of your research delve into  
14 cardiovascular disease?

10:30:42 15 A Cardiovascular research is not an  
16 immediate focus of our research program.

17 Q Does any of the research that you do at  
18 Barrow directly involve experimentation on effects  
19 of cigarette smoke?

10:31:02 20 A None of my research involves the use of  
21 cigarette smoke as an experimental variable.

22 Q Does any of your research involve -  
23 directly involve the use of tobacco as an agent in  
24 your research?

10:31:22 25 A No, tobacco use is not a variable in any

10:31:22 1 of my research.

2 Q What is the particular area of research  
3 you're involved in?

4 A Principally my research is concerned with  
10:31:32 5 nicotinic acetylcholine receptors.

6 Q Would you spell that for the benefit of  
7 the individuals here today?

8 A Nicotinic, n-i-c-o-t-i-n-i-c;  
9 acetylcholine, a-c-e-t-y-l-c-h-o-l-i-n-e; receptors,  
10:32:00 10 r-e-c-e-p-t-o-r-s.

11 Q And this is different than muscarinic  
12 acetylcholine receptors?

13 A That's correct.

14 Q Could you tell us a little bit about what  
10:32:16 15 your - in a very thumbnail sketch, what your  
16 research involves?

17 A Well, it is quite wide-ranging within the  
18 field of nicotinic receptors. And, perhaps, if you  
19 will allow, maybe we can call these nicotine  
10:32:36 20 receptors just as a shortcut.

21 Our interest has principally been in the  
22 identification and the characterization of these  
23 nicotine receptors, the - identifying where they are  
24 found in the brain and body and the functions that  
10:33:02 25 they might play at the integral level, at the



10:33:06 1 molecular level, and the cellular level.

2 Q And, in fact, the bulk of the research  
3 that you've done to date, beginning with your  
4 doctoral work, has been on biochemical and cellular  
10:33:18 5 aspects of receptors; is that correct?

6 A Actually, my research in nicotine  
7 receptors began as a post-doctoral fellow.

8 Q Was that ---

9 A My doctoral research was in another area.

10:33:30 10 Q Was that your work with Eric Shooter and  
11 Ed Stanford?

12 A No. Actually, at the - when I went to the  
13 University of California at Berkeley, working in  
14 Dr. Edward Bennett's laboratory, that is the time  
10:33:46 15 when I began my research on nicotine receptors.

16 Q What type of work did you do in  
17 Dr. Shooter's lab?

18 A In Dr. Shooter's lab, I worked on growth  
19 factors and - and on some basic issues in neuro - in  
10:34:02 20 neuroscience.

21 Q Have you continued any of your work with  
22 growth factors?

23 A Yes, I have, mostly in collaboration with  
24 other people, not as a principal focus in my  
10:34:14 25 laboratory.

10:34:16 1 Q Dr. Lukas, do you smoke?  
2 A No, I do not.  
3 Q Why not?  
4 A Because when I experimented with smoking,  
10:34:26 5 I didn't find it to be something that I was  
6 interested in continuing. I didn't feel that I  
7 derived any benefit from it. And just - it was a  
8 personal decision not to - not to smoke.  
9 Q Do you feel that smoking is a health  
10:34:42 10 hazard?  
11 A There are indications that tobacco use is  
12 a risk factor for certain diseases.  
13 Q Do you personally feel that smoking is a  
14 risk factor or a health hazard?  
10:34:58 15 A I think in some cases, smoking - the data  
16 is quite clear that it is a risk factor.  
17 Q Just based on your testimony now, have you  
18 ever smoked?  
19 A Yes, I have.  
10:35:12 20 Q How long did you smoke?  
21 A For no more than - I probably have had no  
22 more than two packs of cigarettes in my entire  
23 life.  
24 Q Anyone else in your family smoke?  
10:35:26 25 A My father smokes, and my brother's

10:35:30 1 sister - I mean my brother's wife smokes.

2 Q Has your father had any health problems  
3 that might have been attributable to smoking?

4 A Not as far as I can tell.

10:35:44 5 Q Have you ever read the warning labels on  
6 packages of cigarettes or seen them in  
7 advertisements of cigarettes in magazines?

8 A Yes, I have seen - I have seen some of  
9 those warnings.

10:35:56 10 Q Do you agree with the warnings, based on  
11 what you know in the scientific literature?

12 A Based on what I know in the scientific  
13 literature, I don't know that I agree with the  
14 warning that says that smoking can cause disease.

10:36:12 15 Q Why is that, Doctor?

16 A Because I think that showing causality in  
17 the rigorous scientific sense is something that is  
18 quite a bit different from indicating an association  
19 between a behavior and some sort of disease and that  
10:36:34 20 if - if there is - if something is identified as a  
21 risk factor for disease, that doesn't necessarily  
22 suggest that it is a causative agent in a - in  
23 that ---

24 Q Isn't it true, Doctor, that in ---

10:36:48 25 A --- direction.

10:36:50 1 Q --- many instances, we know what the  
2 causative factor is in a disease but do not know the  
3 actual pathogenic mechanisms; and, therefore, one  
4 could use semantics and say that we really don't  
10:37:04 5 know that that agent causes a disease; isn't that  
6 correct?

7 A No, I would disagree with that.

8 Q Why, Doctor?

9 A Well, in my own field, in nicotine  
10:37:18 10 receptor research, there is a disorder called  
11 myasthenia gravis, which is a disorder of flaccid  
12 paralysis of muscles.

13 It is thought that some forms of  
14 myasthenia gravis are caused by an autoimmune  
10:37:36 15 response in an individual in which the individual's  
16 immune system incorrectly recognizes nicotine  
17 receptors and muscle cells as some sort of foreign  
18 substance and raises an immune - immunological  
19 response against those entities, destroying the  
10:37:54 20 receptors and ultimately destroying the muscle  
21 cells.

22 There are other forms of myasthenia gravis  
23 that aren't caused by such an immunological reaction  
24 but, in fact, are caused from - by genetic defects,  
10:38:08 25 by defects in the genes, the code for the nicotine

10:38:10 1 receptors, those defects - those mutations, when  
2 they are manifest in the protein itself, lead to a  
3 loss of the protein's function or a disruption of  
4 the protein's function; and as a consequence,  
10:38:24 5 myasthenia gravis evolves.

6 Q Is the immune status in these patients  
7 that have the so-called autoimmune causation, is  
8 that a risk factor?

9 A It's been difficult so far to identify  
10:38:38 10 what - what features in the immune system would  
11 predispose those individuals who have the autoimmune  
12 form of myasthenia gravis to such - to that  
13 disease.

14 But it is very clear and the causal  
10:38:56 15 relations have been established in the case where  
16 there is a defect in the gene, the codes for the  
17 nicotine receptors.

18 And for many years, this was a problem in  
19 the field because there were myasthenic patients  
10:39:08 20 that would present that had no evidence of an  
21 autoimmune disorder; and it's only now that we  
22 understand that that is because an autoimmune  
23 disorder wasn't the cause or didn't contribute to  
24 their disease but it was simply a genetic defect.  
10:39:22 25 And it took some time to discover the precise

10:39:26 1 genetic defects that caused, in fact, that  
2 disorder.

3 Q Isn't it true, also, that there is a good  
4 deal of research today that suggests that some of  
10:39:32 5 the autoimmune diseases are also genetically  
6 linked?

7 A That may be the cause, as well. Again, we  
8 don't know what features of the immune system  
9 predisposes certain individuals to autoimmune  
10:39:44 10 diseases.

11 Q And, so, genetics is a predisposing factor  
12 in the development of these diseases; and that can  
13 be - that disease can be caused by other factors,  
14 other than just the genetics?

10:39:56 15 A At the moment, I think that we can say  
16 that there is the possibility that genetics can  
17 contribute to autoimmune diseases. But I'm not  
18 certain -- I'm not aware of any studies that  
19 definitively show such a causal relationship.

10:40:16 20 Q How many papers - peer review papers have  
21 you published to date, Doctor?

22 A Probably around 50 or so.

23 Q And these are reflected in your C.V. that  
24 has been provided to us?

10:40:30 25 A That's correct.

10:40:32 1 Q There is also a section in your C.V. that  
2 corresponds to papers that you have presented or, in  
3 this area, it was called an abstract area; is that  
4 correct?

10:40:44 5 A Abstracts, yes.

6 Q Have you published papers -- Strike that.  
7 Have every one of your abstracts resulted  
8 in a peer review paper?

9 A No, they haven't.

10:41:00 10 Q Abstracts are -- Could you explain to the  
11 ladies and gentlemen of the Jury what an abstract  
12 is?

13 A So - an abstract is simply a summary of a  
14 research presentation. In any publication,  
10:41:14 15 typically the first section after the byline,  
16 listing the authors and their affiliations, is a  
17 summary or abstract of the paper.

18 Generally abstracts are documents of the  
19 summaries or presentations given orally or in poster  
10:41:32 20 presentations at scientific meetings.

21 So, as opposed to the publication where  
22 the abstract describes what is to follow in the  
23 written document, there is no written document about  
24 the oral presentation given at a - in a slide - in  
10:41:50 25 a - with slides and an audience or a presentation

10:41:52 1 given with a poster board and an audience.

2 But the abstract serves to summarize what  
3 was said at those sessions, ordinarily because in  
4 these scientific meetings, there are many sessions  
10:42:06 5 going on simultaneously. It's not possible for a  
6 given individual to go to every - each and every  
7 talk.

8 And the abstracts serve as a function of  
9 allowing a written document that allows interested  
10:42:18 10 people to perhaps look at what might have been said  
11 at one of these presentations without having been  
12 there.

13 Q And not all abstracts of research  
14 presentations result in peer-reviewed articles; is  
15 that correct?

16 A That's correct. And there are a number of  
17 factors that may play a role in the discontinuity  
18 between the numbers of abstracts and numbers of  
19 publications.

10:42:46 20 Q The publications that are listed in your  
21 C.V., were most of these studies done in vitro?

22 A I would say that, yes, most of them were  
23 done in vitro.

24 Q Could you explain to us what the  
10:43:08 25 difference between in vitro and in vivo is?



10:43:12 1 A In vivo and in vitro are both Latin  
2 terms. In vivo relates to studies that are  
3 conducted using a whole animal in the body. In  
4 vitro experiments are - make - make - that makes  
10:43:30 5 reference to experiments that are conducted using  
6 some sort of reduced preparation, not an intact  
7 animal but maybe an organ culture or tissue culture  
8 or some processed derivatives from tissues.

9 Q And it appears that a number of your  
10:43:44 10 publications or a good many of them involve the use  
11 of transformed cell lines; is that correct?

12 A That's correct.

13 Q In fact, one cell line that I continued to  
14 see was a cell line called PC 12's?

10:43:58 15 A That's correct.

16 Q Could you tell us what PC 12 cells are?

17 A PC 12 cells are -- The PC 12's are -- The  
18 PC 12 clonal cell line is a tumor cell line derived  
19 from a pheochromocytoma in a rat. Pheochromocytoma  
10:44:20 20 is a cancerous tumor of the adrenal gland. And cell  
21 lines, such as the PC 12 cell line, are typically  
22 isolated by harvesting parts of the tumor,  
23 disbursing the tumor into single cells, growing the  
24 cells in cell culture dishes in a controlled  
10:44:44 25 atmosphere of humidified oxygen and carbon dioxide

10:44:48 1 to maintain at 37 degrees.

2 And as cells - cells will survive and  
3 essentially seem to be immortalized, they continue  
4 to divide and can go on for a long time. As if -

10:45:04 5 when I - we can pull out a single cell and from it,  
6 derive long-term culture, culture that - take that  
7 cell and its offspring over many, many generations.

8 That's one way to derive a clonal cell  
9 line in which all of the cells have, in principal,  
10:45:26 10 exactly the same makeup and properties.

11 Q You said these are a tumor cell line?

12 A Tumor cell line, that's correct.

13 Q In these cell lines express nicotine  
14 receptors?

10:45:48 15 A Not all tumor cell lines express nicotine  
16 receptors. Our research has been concerned with  
17 identifying some that do, to use those as models for  
18 our experimental research.

19 Q And these PC 12's have those receptors?

10:45:58 20 A They do have some classes of nicotine  
21 receptors, yes.

22 Q Are there a number of different types of  
23 nicotine receptors?

24 A Yes, there are.

10:46:08 25 Q And are they found both in the central

10:46:10 1 nervous system as well as the peripheral nervous  
2 system?

3 A It seems that nicotine receptors are found  
4 in the brain, in the central nervous system, in the  
10:46:22 5 autonomic nervous system, and in the peripheral  
6 nervous system, which according to different  
7 definitions includes the nerve muscle junction as  
8 well as the autonomic nervous system. They're also  
9 found in several other tissues in the body, as  
10:46:32 10 well.

11 Q What - what is the autonomic nervous  
12 system?

13 A The autonomic nervous system is meant to  
14 contain cells that are involved in the control of  
10:46:46 15 automatic functions. So, on a hot, humid day in  
16 Texas as you walk from your law office to lunch,  
17 you - at a rigorous pace, your heart rate will  
18 increase. Your respiration rate will increase.  
19 You'll probably perspire a bit if it's warm, to try  
10:47:08 20 and keep you cool and to provide enough circulation  
21 so that you can survive that traumatic experience.

22 That happens automatically. You don't  
23 have to think about it. And those functions are  
24 carried out by the autonomic nervous system.

10:47:20 25 Q Does nicotine stimulation or stimulation

10:47:26 1 of these receptors, does it enhance or suppress this  
2 autonomic nervous system?

3 A Oh, that's - the answer to that question  
4 is very complex. And I think the scientific  
10:47:36 5 information about that - those phenomena is not  
6 complete. Nicotine - nicotinic receptors seem to  
7 play complex roles, and nicotine's effects on the  
8 autonomic nervous system seem to be quite complex.

9 Q Does nicotine cross the blood-brain  
10:47:54 10 barrier?

11 A My understanding is that yes, it does.

12 Q And you said that there are cells in the  
13 brain that also have nicotine receptors?

14 A That is correct.

10:48:04 15 Q Can you tell us a little bit about what  
16 these - these cells do when - when these receptors  
17 are stimulated?

18 A Well, as incomplete as our knowledge is  
19 about the autonomic nervous system and nicotine  
10:48:20 20 receptors there, our information is even less  
21 complete about nicotine receptors and the roles that  
22 they play in the brain. But there are - that's an  
23 area of intensive investigation at the moment.

24 Q Is some of that research involving  
10:48:40 25 mechanisms of nicotine addiction?

10:48:48 1 A I'm not sure what you mean by "addiction,"  
2 the phrase "addiction."

3 Q There has been a number of statements and  
4 studies and reports that confirm that nicotine is a  
10:49:02 5 drug that has addictive properties; isn't that  
6 correct?

7 A Again, it depends on what the definition  
8 of "addiction" is. There - it's often the case that  
9 the scientific - well, sometimes the case that the  
10:49:22 10 scientific definition of a - of something like  
11 "addiction," concepts such as "addiction" is  
12 different from the lay definition or the lay  
13 perspective on "addiction."

14 Q Dr. Lukas, as a scientist who's working  
10:49:40 15 with nicotine, what is your definition of  
16 "addiction"?

17 A Well, the most rigorous definition of  
18 "addiction" has six elements. One is that the  
19 substance would - that dependence on the substance  
10:50:02 20 evolves, that a user, a habitual user of an  
21 addictive substance will often require more of the  
22 substance to achieve the same physiological result.

23 Tolerance will develop to an addictive  
24 substance, and for that matter, to many drugs, even  
10:50:16 25 if they aren't addictive in that it takes more of

10:50:22 1 the substance to effect the same kind of - kind of  
2 result.

3 Often another element of addiction is - is  
4 withdrawal symptoms, that if an individual who is a  
10:50:44 5 habitual user of a substance withdraws from that  
6 substance, often there are unpleasant side effects  
7 of that process.

8 But there are three other elements, as  
9 well. One is that someone who habitually uses an  
10:51:00 10 addictive substance often will engage in compulsive  
11 behavior to seek that substance. And in the  
12 rigorous definitions of "addiction," the substance  
13 is thought to cause intoxication and that the use of  
14 the substance poses a threat to the user and/or  
10:51:20 15 other members of society.

16 Q The latter three that you've - you've -  
17 you've described, is that always - are they always  
18 associated with an addictive drug?

19 A I think using the - if you use those in  
10:51:42 20 the classical definition of "addiction," then it's  
21 tautological that, in fact, those would be features  
22 that would be acquired for a judge - for a drug to be  
23 judged as being addictive.

24 Q Isn't it true that nicotine in many cases  
10:51:54 25 fulfills all six of those elements?

10:51:58 1 A I don't know that that's -- I don't -- I  
2 wouldn't agree with that. I think the evidence is  
3 sound that there is some dependence on nicotine and  
4 that tolerance develops and that there are some  
10:52:12 5 withdrawal symptoms involved in individuals as they  
6 try to cease smoking, for example.

7 But I think subject to controversy are the  
8 issues regarding intoxication, endangerment to the  
9 user and/or members of society and how compulsively  
10:52:32 10 individuals pursue smoking.

11 Q Are heroine addicts always a danger to the  
12 community?

13 A I don't know that they always are.  
14 There's that - there's certainly that potential.

10:52:48 15 And heroine use, in that it is quite intoxicating,  
16 can - it is a hazardous substance to the user.

17 Q Can nicotine be, in certain dosages, be  
18 very intoxicating?

19 A Nicotine at doses that are about 60 times  
10:53:08 20 the amount of nicotine in a single cigarette is a  
21 toxic substance, yes.

22 Q The question was "intoxicating" rather  
23 than "toxic."

24 A Oh, "intoxicating." I don't know that  
10:53:22 25 there is solid evidence for that.

10:53:24 1 Q But there is some evidence?  
2 A I don't -- I don't -- Nothing that has  
3 convinced me that it is an intoxicating substance.  
4 Q But that's based on your opinion,  
10:53:36 5 correct?  
6 A Correct.  
7 Q And not the opinion of other people who  
8 have researched in that field?  
9 A I'm -- I may not know the opinions of  
10:53:46 10 everyone who has investigated in the field.  
11 Q Are you familiar with the 1988  
12 Surgeon General's report that was provided to us in  
13 your disclosure?  
14 A Yes, I've looked that over.  
10:54:02 15 Q And do you know what the title of that  
16 particular report is?  
17 A I haven't committed it to memory, no.  
18 Q Dr. Lukas, I would like to hand you a copy  
19 of a document that was provided to us in your  
10:54:32 20 disclosure entitled, "The Health Consequences of  
21 Smoking, Nicotine Addiction, a Report of the Surgeon  
22 General." It was released May 16, 1988. I would  
23 like to present that for you to look at briefly  
24 (Tendering).  
25 A (Reviewing document)



10:54:48 1 Q We're not going to go into the details of  
2 the report. I just want to know that that is one of  
3 the documents that was provided to us in your  
4 disclosure box; is that correct?

10:54:58 5 A Yes.

6 Q And you said that you have read that  
7 report?

8 A I have looked at it, yes.

9 Q Are you familiar with Dr. C. Everett  
10 Koop?

11 A Yes, I am.

12 Q And was he the Surgeon General of the  
13 United States at the time this particular document  
14 was released?

10:55:12 15 A That's my recollection, yes.

16 Q Are you aware that he has stated that  
17 nicotine is an addictive substance, that it meets  
18 the criteria of addiction?

19 A Again, that may depend on the definition  
10:55:30 20 of "addiction." Concepts in science, concepts in  
21 behavior evolve over time. Definitions evolve over  
22 time.

23 It's - you know, there's a dynamic  
24 process. And there may - so, evaluation of whether  
10:55:48 25 a substance is addictive or not depends not only on

10:55:52 1 the behavioral effects of that substance but also  
2 what the definition that's used to categorize  
3 different substances.

4 Q And at the time Dr. C. Everett Koop was  
10:56:06 5 the Surgeon General, he's also a clinician; is that  
6 correct?

7 A That's my understanding, yes.

8 Q And at that time, he was basically the  
9 commander in chief of public health for the United  
10:56:18 10 States; is that correct?

11 A That would be an appropriate  
12 characterization, yes.

13 Q And he would be in probably a better  
14 position than you to make an assessment as to the  
10:56:36 15 addictive effects based on all of the research that  
16 was provided to him. Would you agree to that?

17 A Perhaps some people would think that he  
18 would be in a better position to make such an  
19 appraisal, yes.

10:56:54 20 Q Dr. Lukas, has - the studies that you've  
21 conducted and the research that you've reported, how  
22 much of that work has been done in vivo?

23 A I don't know that any of the work that  
24 I've done has been done in vivo.

10:57:14 25 Q And you've previously testified that your

10:57:18 1 research doesn't involve the use of cigarette smoke;  
2 is that correct?

3 A That's correct.

4 Q Have you done any studies injecting either  
10:57:28 5 nicotine or some type of nicotine agonist directly  
6 into animals?

7 A No, I haven't.

8 Q So, your studies, again, are primarily  
9 biochemical and cellular in nature; is that  
10:57:40 10 correct?

11 A That's correct.

12 Q Dr. Lukas, do you believe that nicotine is  
13 a drug?

14 A Yes, it is.

10:58:04 15 Q Is it a drug available to clinicians to  
16 use in some of their either treatment or  
17 experimental treatments of patients?

18 A Yes, it is.

19 Q Are the current uses of nicotine by  
10:58:24 20 clinicians regulated by the Federal Drug  
21 Administration?

22 A I'm not certain about that.

23 Q That's not your area of expertise?

24 A No.

10:58:36 25 MR. THORPE: I would like to

10:58:36 1

take another break.

2

MR. SHELY: Yeah, that's fine.

3

4

1:

5

(AT THIS TIME A BRIEF RECESS WAS  
TAKEN, AND THE PROCEEDINGS THEREAFTER  
RESUMED AS FOLLOWS:)

6

7

8

(By Mr. Thorpe)

9

Q I think, Dr. Lukas, we were talking about

11:13:34 10

11

nicotine and some of its functions a little

12

earlier. We talked a little bit about different

13

nervous components that have nicotine receptors.

14

Does nicotine have pharmacologic effects in humans  
as well as animals?

11:14:00 15

16

A I think it certainly does. You know, as a

17

drug - a pharmacologist's definition of a drug is

18

"anything that affects a biological system," "any

19

substance that affects a biological system." And

11:14:14 20

nicotine certainly does have effects on biological  
systems.

21

Q We've talked a little bit about some of

22

the possible effects on the nervous system. Does

23

nicotine also have an effect on the neuroendocrine

24

system?

11:14:24 25

A Yes, it seems that it does, principally

11:15:22 1 it's changing blood pressure, yes.

2 Q Does nicotine also have effects on the  
3 cardiovascular system?

4 A My understanding of the literature is that  
11:15:30 5 it does, yes.

6 Q But that's not an area that you do  
7 research in?

8 A I'm not an expert in that area.

9 Q Do you know if nicotine also has effects  
11:15:40 10 on ...

11 MR. THORPE: Off the record.

12

13 (AT THIS TIME A BRIEF RECESS WAS  
14 TAKEN, AND THE PROCEEDINGS THEREAFTER  
15 RESUMED AS FOLLOWS:)

16

17 (By Mr. Thorpe)

18 Q Doctor, we're back on the record after a  
19 visitation from the music gods. I think the  
11:16:34 20 question I was about to ask you is if nicotine has  
21 any known effects on any blood lipids?

22 A Any blood lipids? That's not an area  
23 where I'm an expert.

24 Q Do you know whether or not nicotine  
11:16:52 25 increases LDL's in the blood?

11:16:56 1 A I'm not familiar with the literature about  
2 that subject.

3 Q Do you had -- Do you know if nicotine has  
4 an effect on the blood pressure?

11:17:06 5 A My understanding is that there are  
6 effects. But from my review of the literature, it  
7 seems to me that it's controversial and in state  
8 dependent in that in some individuals and depending  
9 on what their basal blood pressure is, nicotine may  
11:17:22 10 have more or less of an effect.

11 Q Are there studies that show that nicotine  
12 administration in laboratory animals increases the  
13 blood pressure?

14 A Again, that's an area that's not  
11:17:36 15 immediate - squarely in my area of expertise, but I  
16 do recall that there is some effect on blood  
17 pressure.

18 Q Are there also studies that show that  
19 nicotine reduces blood flow both in the coronary  
11:17:48 20 system and in the placenta?

21 A I'm not familiar with that line of study.

22 Q That's not your area of expertise?

23 A No, it's not.

24 Q We're obviously here today because of  
11:18:02 25 issues involving cigarettes and cigarette smoking.

11:18:08 1 And I'm sure that most everyone who has not been  
2 cloistered on a mountain know that cigarettes have  
3 nicotine in them. Would you agree with that?

4 A Yes, I do.

11:18:22 5 Q Is the nicotine levels that are in  
6 cigarettes noted on the packages of cigarettes?

7 A I don't -- I wouldn't know that. I  
8 haven't examined any packages of cigarettes.

9 Q What are alkaloids, Doctor?

11:18:42 10 A Alkaloids, to my understanding, are  
11 compounds that have - chemical compounds that have  
12 ring structures.

13 Q Is nicotine an alkaloid?

14 A It's characterized as an alkaloid, yes.

11:19:04 15 Q Dr. Lukas, are there some animals that are  
16 hypersensitive to the administration of nicotine?

17 A My understanding is that there are genetic  
18 influences on responses of individual strains of  
19 animals to nicotine.

11:19:20 20 Q Are mice particularly sensitive to the  
21 administration of nicotine?

22 A I don't know. "Sensitive" is a difficult  
23 term to define. But across - because I'm not  
24 certain whether you mean in reference to humans or  
11:19:38 25 not. But across strains of mice, there are some who

11:19:42 1 seem to be more sensitive to nicotine than others.

2 Q In fact, in some strains, it's highly  
3 toxic; it's that correct?

4 A I'm not sure that it's toxic, but I  
11:19:54 5 understand that there are differences across strains  
6 in sensitivity to nicotine as regards some of the  
7 biological readouts, probably blood pressure, body  
8 temperature, et cetera.

9 Q Dr. Lukas, in your - in your - in your  
11:20:06 10 research in nicotine - and - and you - and you say  
11 you've reviewed the literature quite extensively on  
12 nicotine and areas that involve nicotine; is that  
13 correct?

14 A Yes.

11:20:18 15 Q Have you read a book by Orleans and  
16 Slade? The title of the book is Nicotine Addiction,  
17 Principals in Management.

18 A No, I have not read that book.

19 Q Are you familiar with that book ---

20 A No, I'm not ---

21 Q --- at all?

22 A --- familiar with that book.

23 Q Dr. Lukas, earlier you stated that you  
24 believe that nicotine is a drug?

11:20:52 25 A Yes, using the definition of "drug" as a



11:20:54 1 chemical substance that can affect biological  
2 systems.

3 Q And you also said that it's your  
4 understanding that nicotine is used in some clinical  
11:21:04 5 settings; is that correct?

6 A That's correct, yes.

7 Q Do you believe that the FDA should  
8 regulate nicotine as a drug?

9 A I'm not certain that I could render an  
11:21:18 10 expert opinion on that.

11 Q As a scientist who works in the area of  
12 nicotine and nicotine effects, what is your opinion  
13 regarding whether or not FDA should regulate  
14 nicotine as a drug?

11:21:30 15 A I - I would say that if it is being used  
16 medically as a pharmacotherapeutic substance, it  
17 probably isn't unreasonable for the FDA to regulate  
18 it in medicinal practice.

19 Q Should the FDA have jurisdiction or  
11:21:56 20 regulate -- Strike that.

21 Should the FDA have jurisdiction or be  
22 able to regulate nicotine in cigarettes?

23 A Well, that's a very complex issue. And I  
24 don't know that I'm in a position to render an  
11:22:10 25 expert opinion about - about that.

11:22:14 1 Q What is your personal opinion?

2 A Well, it's something that I haven't given  
3 actually a lot of thought to. There are a lot of  
4 complex issues involved. So, I would have to -- I  
11:22:36 5 would -- Before I would express a personal opinion,  
6 I would need to think about that some more.

7 Q Do you intend to give an opinion at the  
8 time of trial or later on in any other cases whether  
9 or not the FDA should be allowed jurisdiction and  
11:22:50 10 able to regulate nicotine in cigarettes?

11 A Again, those kinds of decisions are really  
12 outside of my field of expertise. So, I don't know  
13 that I would prepare to render an expert opinion  
14 about that.

11:23:04 15 Q And, so, at this time you do not believe  
16 that you will render an opinion with regard to the  
17 FDA's regulation of nicotine?

18 A At this point, I don't believe that I  
19 would render an opinion about that.

11:23:16 20 Q And if your position changes, you will let  
21 your attorneys know so that they can inform us; is  
22 that correct?

23 A I certainly will do that.

24 Q Doctor, in looking over your publication  
11:23:32 25 list, I noticed that there was a publication you

11:23:38 1 had with another set of authors, I think a  
2 Dr. Goldstein?

3 A Uh-huh. Yes.

4 Q And it had something to do with  
11:23:44 5 something - thymopoietin or something like that.  
6 I'm curious - it was listed as a publication. But  
7 there was also a disclaimer of sort saying that part  
8 of it was withdrawn. Could you give us the  
9 circumstances leading and what was withdrawn?

11:24:02 10 A Yes. That's - that was a very unfortunate  
11 circumstance. Thymopoietin is a drug - is a - is -  
12 is a thymic peptide that was discovered by  
13 Dr. Gideon Goldstein and his colleagues some years  
14 ago.

11:24:22 15 And Dr. Goldstein at the time that he  
16 discovered this compound had some scientific data  
17 that suggested to him that thymopoietin might  
18 interact at nicotine receptors in muscle and, in  
19 fact, possibly that this thymic peptide might play a  
11:24:38 20 role in myasthenia gravis.

21 Those studies had been - had - were done  
22 maybe 10 or - 10 or 20 years ago. Then in the  
23 late - I don't remember the precise year that we  
24 published those articles - maybe around 1990 or so.

11:24:54 25 Could you refresh my memory?

11:24:56 1 Q It was 1990.

2 A 1990. In the late 1980's, there were  
3 some publications, including a publication from  
4 Dr. Jean-Pierre Changeux, one of our collaborators  
11:25:10 5 at the Pasteur Institute in France, suggesting that  
6 thymopoietin interacted directly with nicotine  
7 receptors, that previously it was thought that  
8 thymopoietin might simply act somehow through the  
9 thyroid gland - through the thymus gland to affect  
11:25:28 10 immunological function.

11 So, that - that caught our interest,  
12 as did some studies by Maryka Quik, then at McGill  
13 University in Montreal, on thymopoietin. So, we  
14 jumped into the fray in that we contacted  
11:25:44 15 Dr. Gideon Goldstein, who had left academia and is  
16 actually running an R & D wing for one of the major  
17 drug companies, and asked him if he would send us  
18 some thymopoietin, that we would like to test it in  
19 our clonal cell line systems.

11:26:02 20 And we had - as you've mentioned before,  
21 there seemed to be a variety of different types of  
22 nicotine receptors. And what we've evolved over the  
23 years are in vitro models, cell lines that express a  
24 number of these different kinds of receptors.

11:26:20 25 They're very convenient tools for studying these

11:26:24 1 different receptors sometimes.

2 And what we simply wanted to do was to see  
3 whether thymopoietin might act at any or all of  
4 these nicotine receptors, if it had some specificity  
11:26:34 5 for some nicotine receptors or that it might act at  
6 some but not others.

7 Dr. Goldstein had one of his colleagues  
8 send us thymopoietin. And we used it in our  
9 experiments and found, in fact, that it did have  
11:26:52 10 some effects in that it would block function and  
11 would bind to - by "binding," I mean there are many  
12 cases where we will study a preparation that has  
13 receptors and we'll look at the ability of different  
14 drugs or peptides or proteins to interact or bind to  
11:27:10 15 that - to those receptors.

16 So, our results showed that some nicotine  
17 receptors were interacting with this substance that  
18 was represented to us to be thymopoietin. We were a  
19 little concerned about it because the profile of its  
11:27:32 20 activity at nicotine receptors wasn't quite what we  
21 thought.

22 And there were some things that didn't  
23 make a lot of sense in that the circulating levels  
24 of thymopoietin, as suggested to be detected in  
11:27:44 25 laboratory animals by Dr. Goldstein and the

11:27:46 1 concentrations at which this thymopoietin was acting  
2 at the receptors in our systems suggested that if it  
3 was, in fact, in the body, that half of our  
4 receptors on our muscle cells, our nicotine  
11:28:00 5 receptors in our muscle cells would be blocked by  
6 the substance.

7 So, we kind of made a note of that. But  
8 we went ahead and published our papers in  
9 collaboration with Dr. Goldstein and his  
11:28:12 10 collaborators.

11 Subsequently, we became concerned about  
12 the authenticity of the material that was provided  
13 to us, partly because I had asked Dr. Goldstein to  
14 send us some antibodies against the thymopoietin,  
11:28:30 15 reasoning that we should be able to remove the  
16 thymopoietin from our samples from that and remove  
17 the biological activity with those antibodies.

18 We found that the antibodies were not  
19 pulling anything out of our preparation. The  
11:28:44 20 substance that was having effects on nicotine  
21 receptors was not removed by anti-thymopoietin  
22 antibodies.

23 And over a period of time and  
24 conversations with Dr. Quik, who was then at McGill  
11:29:00 25 University but also was working actually down in

11:29:08 1 Baylor and Jim Patrick's lab in a neuroscience  
2 program there, we decided to continue our  
3 investigations.

4 And Dr. Quik and Dr. Patrick provided to  
11:29:18 5 us some antibodies against a snake neurotoxin called  
6 cobra toxin. We did the same kinds of experiments  
7 with those antibodies to see if we could pull out  
8 the reactive substance from the preparations that  
9 Dr. Goldstein sent to us. Out with those  
11:29:38 10 antibodies, we found that we did, suggesting that  
11 the - the biologically-active material in the  
12 solutions provided to us by Dr. Goldstein's  
13 colleagues were not thymopoietin but were, in fact,  
14 a snake neurotoxin.

11:29:52 15 So, having discovered that, obviously  
16 the - those results, that invalidated the  
17 interpretation of our results. And we published a  
18 retraction, indicating that the studies - the  
19 biological activity that we had attributed to  
11:30:12 20 thymopoietin were not, in fact, biological  
21 activities of thymopoietin but were, in fact,  
22 biological activities of a toxin that was  
23 fraudulently represented to us to be thymopoietin.

24 The individual, the colleague who worked  
11:30:30 25 with Dr. Goldstein and who we suspect was the

11:30:32 1 perpetrator of this unfortunate chain of events,  
2 to my knowledge was dismissed from employ by  
3 Dr. Goldstein. And I have done what I could to  
4 ensure that that individual doesn't have a position  
11:30:48 5 in academia in the future.

6 Q So, scientific fraud is an area that  
7 you're very adamant about; is that correct?

8 A Absolutely.

9 Q The concerns that you had about the  
11:31:02 10 results of these studies, did you also include that  
11 in your discussion of - in the paper that you  
12 published in 1990; or were these concerns not  
13 something that you addressed in that paper?

14 A We may have -- I don't remember exactly.  
11:31:18 15 And I've gone back to look at that several times.  
16 I'm sorry that I don't remember. I've gone back to  
17 see exactly what we said and - because we were  
18 concerned about - again, about this issue that if  
19 this thymic hormone is on board, our muscles should  
11:31:34 20 be operating at half maximal efficacy all the time.  
21 And that didn't make any sense. I don't recall  
22 whether I mentioned that or not, but that was one of  
23 our concerns.

24 Q Were any of these studies - or the study  
11:31:44 25 that you published in 1990, did you have - follow



11:31:50 1 this - these up with subsequent studies or was it -  
2 or did you continue that line of research?

3 A We -- Aside from doing those experiments  
4 using the antibodies against thymopoietin or against  
11:32:02 5 the snake toxin to figure out what was in those  
6 preparations, we did get some - well, actually, as  
7 part of those initial experiments - and another  
8 thing that tipped us off that something might be  
9 wrong is we took smaller derivatives of the peptides  
11:32:20 10 provided by Dr. Goldstein and wanted - and actually  
11 some that were - that were available commercially,  
12 and they had no biological activity. It was only  
13 the full peptide that had biological activity.

14 So, we were concerned about that because  
11:32:36 15 it was thought that this was the biologically active  
16 part of the full peptide. So, we did at one point,  
17 I believe, get some recombinant thymopoietin from  
18 Dr. Goldstein. And "recombinant" means a protein  
19 that was synthesized after genetic engineering to  
11:32:58 20 express the DNA, the codes for thymopoietin, not -  
21 not naturally purified thymopoietin.

22 And my recollection is that when we tried  
23 that, there was no biological activity. And I had  
24 discussions with Dr. Goldstein about that. And my  
11:33:16 25 understanding is he has continued that research to

11:33:18 1 try and sort things out.

2 He had quite a bit of a mess to clean up  
3 not just in regards to the work with us but also  
4 some of the proprietary studies that he had done in  
11:33:26 5 conjunction with this associate, all of which now  
6 became suspect. So, it's an area that we - after  
7 our retraction, that we basically dropped.

8 Q When - when did you publish the  
9 retraction?

11:33:42 10 A It may have -- I don't remember exactly.  
11 It's in -- I think it's in the Curriculum Vitae. It  
12 probably took a few years for us to sort all that  
13 out. And because there was involvement not just in  
14 my laboratory but the laboratory at McGill, the  
11:34:02 15 laboratory in Baylor, the laboratory in France, you  
16 know, there's a little bit of - of - of - of - I  
17 don't know if it's politics, but everyone - we - we  
18 needed to - to progress and word things in such a  
19 way as not to falsely impune someone and to phrase  
11:34:20 20 things in such a way that - so that no one was  
21 offended but yet it was to make it clear what had -  
22 as clear as we could, what had happened.

23 And, in particular, Dr. Goldstein was  
24 concerned about possible liability on the part of  
11:34:38 25 his company by making allegations that perhaps would

11:34:42 1 have been difficult to - to prove in a formal legal  
2 setting.

3 Q But it was important to do the retraction  
4 to correct the scientific literature; is that  
11:34:56 5 correct?

6 A That's correct.

7 Q And as you have just testified,  
8 unfortunately, science is not immune from the  
9 effects of politics; is that your both understanding  
11:35:16 10 and experience?

11 A That's correct.

12 Q Dr. Lukas, in your experience or in your -  
13 during the period that you've been a scientist, has  
14 scientific fraud become a problem in research in  
11:36:10 15 general?

16 A I don't know that it's become a problem.  
17 It's an issue that has existed since science was  
18 done. I recall seeing some - some late publications  
19 looking back at Mendel's experiments, for example,  
11:36:32 20 and saying he must have fudged some of his data.  
21 It's just too clean.

22 But it is an issue. And it's an issue  
23 that is important politically, not just within the  
24 scientific community but outside of it because of  
11:36:46 25 the public trust in science and the fact that

11:36:50 1 resources for scientific research come from the  
2 public.

3 Q In fact, it's a concern enough at the  
4 National Institutes of Health that they now have an  
11:37:00 5 office of scientific integrity?

6 A That's correct.

7 Q And that office's job is to look into  
8 allegations or to ferret out scientific fraud,  
9 correct?

11:37:12 10 A That's correct.

11 Q And it's my understanding that if that -  
12 if fraud is proved, that the grantee, if he's an NIH  
13 grantee, is barred from receiving NIH grants after  
14 that?

11:37:28 15 A That's my understanding of the process,  
16 yes.

17 Q Dr. Lukas, in your C.V., you have listed  
18 that you are a scientific advisor to the Amethyst  
19 Technologies, Incorporated.

11:37:42 20 A That's right.

21 Q Could you tell us what Amethyst  
22 Technologies is?

23 A Well, it's a - it's a biotechnology  
24 company that's engaged in proprietary work.

11:38:00 25 Q In what area?

11:38:04 1

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MR. SHELY: I'm just going to  
interject for a minute because I  
don't want him to get in trouble  
with ---

11:38:08 5

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11:38:18 10

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(By Mr. Thorpe)

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A Yes, it is proprietary research. But the  
work that's being conducted and the products that

MR. SHELY: I just want ---

MR. SHELY: I just want him to  
have the chance to reflect on the  
proprietary nature of it. And he can  
answer however he wants. I just  
don't want him to get in trouble with  
those folks.

MR. THORPE: That's acceptable.

11:38:48 1 are under development have nothing to do with  
2 nicotine or its receptors.

3 Q Are you paid as an advisor?

4 A In principal, yes. I haven't received any  
11:39:02 5 remuneration yet, though.

6 Q And will that somewhat depend on the  
7 outcome of whatever is being done?

8 A That's right.

9 Q Do you have an interest in the company?

11:39:14 10 A Not at the moment. We haven't worked out  
11 the details of that.

12 Q Is that a possibility?

13 A That is a possibility, though.

14 Q Have you -- Are you currently or have you  
11:39:26 15 ever done any other consulting for industry?

16 A No, I have not.

17 Q How long have you been a scientific  
18 advisor for Amethyst? And the spelling of that is  
19 A-m-e-t-h-y-s-t.

11:39:48 20 A And the pronunciation is "Amethyst."

21 Q Amethyst. Better you than me.

22 A It's been about one year.

23 Q Many of the publications that are listed,  
24 there are a number of different authors, that to me  
11:40:24 25 suggests that these studies that you've been

11:40:30 1 involved in are collaborative-type efforts; is that  
2 correct?

3 A In some cases, they're collaborative  
4 outside of our Institute. In some cases, all of the  
11:40:38 5 authors have been affiliated with my laboratory at  
6 the Barrow Neurological Institute either as  
7 post-doctoral fellows, research assistants, or  
8 students.

9 Q Dr. Lukas, are you familiar with a  
11:40:48 10 publication called Citation Index?

11 A Yes, I am.

12 Q Could you tell us what Citation Index is?

13 A Citation Index basically represents a  
14 compilation of references made in the literature  
11:41:08 15 over a certain period of time to previous articles  
16 published in the literature.

17 Q And, unfortunately, isn't that a  
18 publication that many universities use to - as a  
19 criteria for tenure?

11:41:22 20 A I don't know about that. It's not  
21 something that -- For example, in proceedings of our  
22 tenure and promotion committee or when I've been  
23 asked to write letters of recommendation for  
24 individuals coming up for tenure or promotion, I've  
11:41:38 25 never been asked to review or look at science

11:41:42 1 Citation Index nor have I.

2 Q Dr. Lukas, I think earlier we - I asked  
3 you whether you believe that smoking can cause  
4 disease. Can you give us your definition of cause  
11:42:06 5 or causation as you use it?

6 A Uh-huh. Well, as I use it, if something  
7 is to be implicated, something that causes a  
8 disease, that - then in order to get the disease,  
9 it's a requirement that that substance - that  
11:42:26 10 substance or that causal event occur and that in the  
11 absence of it, the disease is not caused.

12 And let me give you an example. We have  
13 already discussed myasthenia gravis, about some of  
14 the genetic factors involved there. And I think it  
11:42:46 15 is very clear that the cause of some forms of  
16 congenital myasthenia gravis that don't involve an  
17 autoimmune response is a mutation in the gene that  
18 codes for part of nicotine receptor.

19 So, in that case, if that mutation isn't  
11:43:06 20 there, the disease doesn't evolve. When - and when  
21 that mutation occurs, then that individual is going  
22 to get that disease.

23 Q Can genetic mutations be caused by agents,  
24 outside agents, chemicals, viruses, things like  
11:43:22 25 that?



11:43:24 1 A My understanding is that there are a  
2 variety of different things that can cause  
3 spontaneous mutations in genes, including -  
4 including natural mistakes in copying DNA, as cells  
11:43:36 5 divide or during embryogenesis.

6 Q Aren't these things usually referred to  
7 being mutagens or mutagenic?

8 A Mutagens can cause mutations in DNA, but  
9 mutations can also occur without the mutagens being  
10 present just ---

11 Q Do you know whether ---

12 A --- by an error in DNA copying.

13 Q Sorry. Do you know whether smoking --  
14 Strike that.

11:44:02 15 Do you know whether cigarette smoke has  
16 elements that are mutagenic?

17 A My understanding is that a component in  
18 cigarette smoke is benzopyrene. And I'm not an  
19 expert in this field, but my recollection is that it  
11:44:22 20 has some mutagenic potential, yes.

21 Q Have you read the science article that was  
22 published I think last fall on benzopyrenes?

23 A No, I haven't followed that field much  
24 over the last few years. I didn't read that - that  
11:44:36 25 article.

11:44:38 1 Q But it's your understanding that that  
2 chemical that's found in cigarette smoke is a  
3 mutagen or has mutagenic properties?

4 A That's correct.

11:45:00 5 Q Do you believe that in order to establish  
6 whether or not a chemical or some type of agent is a  
7 cause of a disease, that the full molecular and  
8 biochemical mechanisms have to be worked out?

9 A Perhaps not necessarily. That always adds  
11:45:26 10 to the weight of the evidence. But I can imagine  
11 some circumstances where, you know, the causal  
12 relationship can be demonstrated without a full  
13 elucidation of the processes involved.

14 Q Are you aware that CTR claims that the  
11:45:44 15 causal connection between smoking and various  
16 diseases is not proven?

17 A I'm aware that those are statements that  
18 are found in many of the annual reports, for  
19 example, yes.

11:45:54 20 Q Can you name any other scientific  
21 organization that makes similar claims?

22 A It's not something that I've investigated  
23 in detail. But I'm not aware of any other  
24 organization that makes the same sort of claim.

11:46:18 25 Q Have -- Aside from the research grants

11:46:22 1 that you've - or the funding that you've received  
2 from CTR, have you been paid by the CTR for  
3 publication of - or for writing or publishing any  
4 review articles or symposia articles?

11:46:38 5 A No, I haven't.

6 Q Have you been asked by the CTR to  
7 participate in any symposiums involving smoking and  
8 health?

9 A I haven't recently with perhaps one  
11:46:50 10 exception. And, again, I apologize because my  
11 recollection is - is not complete on this. But I do  
12 recall going to a symposium held or some sort of  
13 scientific meeting held at the Council for Tobacco  
14 Research shortly after I obtained my first grant  
11:47:12 15 from them, as a - to - I basically sat in the  
16 audience and listened to the scientific  
17 proceedings.

18 Q Was this an open symposia, or was this a  
19 symposia that was strictly reserved for CTR  
20 grantees?

21 A I don't remember the details.

22 Q Do you know whether or not any of the - of  
23 the presentations were published at this - from the  
24 symposia were published in book form?

11:47:42 25 A I don't believe that they were.

11:47:52 1 Q Have you -- Other than that symposia, have  
2 you ever attended or do you know of any symposia  
3 that was organized by the CTR directly relating to  
4 smoking and health?

11:48:04 5 A It's evident from my review of the annual  
6 reports that the CTR would organize many symposia.  
7 I don't expressly remember the content or the  
8 substance of the work that was discussed there. But  
9 I wouldn't be surprised if there were some symposia  
11:48:22 10 that were devoted to issues of tobacco use and  
11 health and disease, since that's a principal mission  
12 of the Council for Tobacco Research.

13 Q Have you read any proceedings of the  
14 symposia?

11:48:36 15 A No, I have not.

16 Q Have you ever seen any of the proceedings  
17 of the symposia?

18 A No, I have not.

19 Q Do you know whether the symposia were held  
11:48:46 20 at different meetings like Faseb or possibly Society  
21 of Neuroscience?

22 A To my knowledge, I haven't seen any  
23 reports of CTR symposia at those scientific  
24 meetings.

11:49:00 25 Q Have you seen any reports of the symposia

11:49:04 1 at any other major scientific meetings?

2 A No, I haven't.

3 Q Dr. Lukas, are you familiar with the  
4 American Medical Association, just in general?

11:49:32 5 A I know that such an organization exists.  
6 And I have a general feeling for what their mission  
7 is. But I'm not a physician. And I'm not a member  
8 of the AMA.

9 Q And you're familiar with the American  
11:49:46 10 Cancer Society? In fact, I think you were a  
11 reviewer?

12 A No, I've never been a reviewer for the  
13 American Cancer Society. But I understand that that  
14 entity exists and some of - I have a knowledge of  
11:50:04 15 some of their functions.

16 Q Are you familiar with the American Heart  
17 Association?

18 A Yes.

19 Q Are you familiar with the American Lung  
11:50:12 20 Association?

21 A Yes, I know about the existence of both of  
22 those organizations.

23 Q The latter three, the cancer and heart and  
24 lung associations, do they also provide grants to  
11:50:24 25 individuals for research?

11:50:26 1 A The American Cancer Society, the American  
2 Lung Association, the American Heart Association, I  
3 am aware of grants-in-aid programs that are  
4 administered through - through each of those - those  
11:50:38 5 entities.

6 Q Are you aware of their public position on  
7 the causal link between cigarette smoking and cancer  
8 and lung disease and heart disease?

9 A No, I haven't reviewed any documents  
11:50:52 10 relating to that.

11 Q Have you not seen any of the position  
12 papers from those and other organizations regarding  
13 cigarette smoking and health?

14 A No, I haven't reviewed any of those  
11:51:04 15 documents.

16 Q Those documents were not provided to you  
17 by any of your lawyers - or any of the lawyers  
18 involved in this litigation?

19 A No, they were not.

11:51:12 20 Q Would these documents be something that  
21 would be important for you in formulating your  
22 opinions today?

23 A It's hard to tell until I look at them.  
24 They certainly might influence - they certainly  
11:51:28 25 might influence my opinion.

11:51:30 1 Q Would you want -- Would you have wanted  
2 to see those documents prior to this deposition  
3 today?

4 A I don't know that that would be  
11:51:38 5 necessary. But insofar as they exist and would  
6 provide another source of information, it's  
7 something that I would consider.

8 Q And those documents wouldn't have  
9 influenced -- Strike that.

11:51:54 10 You say that they would not have been  
11 necessary in formulating any of your opinions or any  
12 of your testimonies today?

13 A Well, at the moment, my opinions are based  
14 on what - what I have experienced, what I have read  
11:52:04 15 in the scientific literature, the documents that I  
16 have reviewed.

17 MR. THORPE: I think this might  
18 be a good time to think about lunch.  
19 It's noon.

20 MR. OTT: That's fine.

21  
22 (AT THIS TIME THE DEPOSITION WAS  
23 RECESSED FOR LUNCH, AFTER WHICH, THE  
24 PROCEEDINGS RESUMED AS FOLLOWS:)  
25

1 (By Mr. Thorpe)

2 Q Dr. Lukas, before we took our lunch break,  
3 I was - we were discussing symposia that were held  
4 by the CTR or if any had been. And one of the  
12:59:24 5 things I forgot to ask you is: In some meetings, I  
6 know that even though they don't publish the  
7 symposia, per se, they often provide the attendees a  
8 list of abstracts that were going - of the papers  
9 going to be presented or the topics going to be  
12:59:46 10 presented. Did the CTR provide you with any of  
11 these abstracts prior to this or after the meeting?

12 A No, I've never seen any abstracts of  
13 proceedings of any of the CTR meetings.

14 Q Were the symposia or was -- Strike that.  
01:00:04 15 Was the symposia that you stated you did  
16 attend, was that in conjunction with the SAB  
17 meeting?

18 A Not to my knowledge, it wasn't.

19 Q This was an independent meeting?

01:00:14 20 A That's my understanding, yes.

21 Q When was this symposia held?

22 A It was sometime shortly after I became a  
23 grantee. I don't remember the precise time. But  
24 it's likely that it - that it was in the Spring of  
01:00:36 25 '85, given that my first grant with the CTR started



01:00:40 1 in January of 1985.

2 Q Since 1985, have you attended any other  
3 CTR symposia?

4 A No, I haven't.

01:00:46 5 Q To your knowledge, do you know whether CTR  
6 has sponsored any other symposia since then?

7 A No, I haven't. I don't recall if -- If  
8 there were some, I'm sure they would have been  
9 mentioned in the annual reports.

01:01:04 10 Q As a CTR grantee, do you receive the  
11 annual reports yearly?

12 A Yes.

13 Q Was there a period of time that you did  
14 not have CTR funding?

01:01:34 15 A Yes, there was.

16 Q Were you also at that time still receiving  
17 the annual reports, or is that just sent to the  
18 grantees?

19 A My understanding is that it's sent to the  
01:01:46 20 grantees.

21 Q Dr. Lukas, earlier this morning you  
22 testified that you have seen the Texas Complaint  
23 that was filed in conjunction with this lawsuit; is  
24 that correct?

01:02:16 25 A Yes.

01:02:20 1 Q And you have -- You stated that you have  
2 read the Texas Complaint; is that correct?

3 A I have looked at it, yes.

4 Q In your - in your own words, what are the  
01:02:28 5 allegations in the Texas Complaint that have been  
6 alleged against the CTR?

7 A I'm not sure that I can remember all of  
8 those. I think the general nature of the complaints  
9 against - of the counts against - naming the Council  
01:02:56 10 for Tobacco Research concern the operations of its  
11 research program, level of independence of other  
12 scientific activities, independence relative to the  
13 tobacco companies, and issues relating to not just  
14 the grants-in-aid program but also the special  
01:03:18 15 projects and the contract research.

16 Q Who provided you with a copy of that  
17 document, and when were you provided that document?

18 A The attorneys at Bryan Cave provided that  
19 document to me I think probably sometime within the  
01:03:34 20 last month.

21 Q So, this was not a document that was  
22 provided to you when you first - initially met with  
23 the attorneys for the CTR?

24 A No. Among the first documents that I saw  
01:03:48 25 were the Engle Complaint and a draft version, if I

01:03:52 1 recall, of the Arizona Complaint.

2 Q When you first met with the lawyers here  
3 at Bryan Cave in March of 1997 and was asked to be  
4 an expert witness with conjunction of the complaint  
01:04:12 5 against CTR, was that meeting specifically for the  
6 Texas litigation; or did you meet them at that time  
7 for some other case?

8 A The very first time that I met ---

9 Q Yes.

01:04:26 10 A The very first time, as I recall, it was a  
11 rather generic meeting, talking about cases across  
12 the Country. And I don't recall any mention of - at  
13 that time of the Texas Complaint.

14 Q When were you first asked to be an expert  
01:04:46 15 in the case filed in Texas?

16 A I'm sorry. I don't remember precisely  
17 when that request was proffered.

18 Q Were you - was -- In conjunction with the  
19 Texas case, was that the first case you were asked  
01:05:06 20 to participate as an expert; or were you asked to  
21 participate as an expert in another case prior to  
22 Texas?

23 A I was asked to participate in another  
24 case.

01:05:14 25 Q Which was?

01:05:14 1 A I believe the progression was Engle and  
2 then State of Arizona.

3 Q And then Texas?

4 A Yes.

01:05:26 5 Q But you don't remember when they asked you  
6 to function as an expert in the case that we're here  
7 today for?

8 A No. I'm sorry. Not with precision, but I  
9 think it was sometime within the last month. It was  
01:05:46 10 only recently.

11 Q When you met with the lawyers in New York,  
12 had you already been asked to participate in the  
13 Texas litigation?

14 A Not to my recollection.

01:06:28 15 Q So, the discussions you had with the  
16 lawyers in New York were, to the best of your  
17 recollection, were for other cases, not the Texas  
18 case?

19 A To my recollection, they principally  
01:06:40 20 concerned the Engle case.

21 Q And the first time that you talked about  
22 the Texas case was - with the lawyers from New York  
23 was when you met Ms. Cohen here in ---

24 A That's ---

01:06:52 25 Q --- Phoenix?

01:06:54 1 A To the best of my recollection, yes.

2 Q Do you have a deposition scheduled in the

3 Arizona case?

4 A No.

01:07:06 5 Q Have you provided the Plaintiff's

6 attorneys any disclosure or any statements in the

7 Arizona case?

8 A I don't believe that we have, no.

9 Q Do you anticipate providing that material

01:07:22 10 in the Arizona case in the next few months?

11 A I think in due course, as that case

12 proceeds, it's probably likely that I would.

13 Q Is it your -- Do you anticipate giving

14 opinions similar to or different from the opinions

01:07:42 15 you're giving - you will be giving today?

16 A They will probably be similar to the

17 opinions I'm rendering today.

18 Q Doctor, we talked a little bit earlier

19 about the documents that you reviewed in preparation

01:08:16 20 for your deposition and in preparation for your

21 possible testimony in the State of Texas case.

22 And we talked about a - the documents that

23 you reviewed. We were provided a set of documents,

24 a fairly large box of documents, as part of the

01:08:40 25 disclosure in this case. And these were the same

01:08:44 1 documents that were provided to us in - for the  
2 deposition and for the disclosure of Dr. Oparil. Is  
3 that your understanding, that these documents were  
4 one and the same?

01:08:56 5 A Well, I'm not - I wouldn't have the basis  
6 for knowing what you've received in regard to either  
7 my deposition or that of Dr. Oparil.

8 Q So, you were not involved in the selection  
9 of the documents that were provided to us in the  
01:09:14 10 disclosure; is that correct?

11 A Well, my understanding is that the  
12 documents that were provided are the documents, in  
13 fact, that I reviewed.

14 Q And you don't know whether or not --  
01:09:26 15 Strike that.

16 Earlier you said that you had read  
17 Dr. Oparil's deposition; is that correct?

18 A That's right.

19 Q And in part of that deposition, the  
01:09:38 20 disclosure that was provided to the Plaintiffs in  
21 this case was discussed; is that your recollection?

22 A I imagine that would have been in that  
23 document, yes.

24 Q Okay. And ---

01:09:48 25 A The information would have been there.

01:09:52 1 Q But you do not know whether those are the  
2 same documents that were provided as - that  
3 purported to be your disclosure?

4 A No, I haven't examined the files that have  
01:10:00 5 been given to you.

6 Q And during any of the meetings, you didn't  
7 select out the documents that you were going to  
8 use ---

9 A No.

10 Q --- is that correct?

11 A No. No.

12 Q Do you know who selected the documents  
13 that were provided in the disclosure?

14 A Well, those - those are the documents that  
01:10:20 15 I have reviewed. And, again, aside from my personal  
16 stock of CTR annual reports and the literature that  
17 I have reviewed over the years, I would say that all  
18 of the documents that I have examined have been  
19 provided through Bryan Cave.

01:10:40 20 Q But you stated just a minute ago that you  
21 don't know what documents were provided to us; is  
22 that correct?

23 A That's right. But the documents that have  
24 been provided to me have been provided through  
01:10:54 25 Bryan Cave. And I would imagine that they have

01:10:54 1 provided you with the same documents.

2 Q But that's a speculation based on just  
3 that, speculation?

4 A But I have no basis for knowing whether  
01:11:02 5 that's the case or not.

6 Q So, in fact, you don't know the documents  
7 that I've been provided?

8 A That's correct.

9 Q And did you -- In the documents that you  
01:11:14 10 reviewed, you said that you had reviewed some of  
11 your own documentation. And we have already talked  
12 about your providing a list of the documents that  
13 you -- that you personally reviewed, other than those  
14 documents that were provided to you.

01:11:28 15 Were any copies of those documents that  
16 you had personally researched or had, were any of  
17 those documents provided to the lawyers here or the  
18 lawyers in New York?

19 A No, I haven't provided any of that  
01:11:46 20 documentation to any counsel.

21 Q Did you in your meetings with any of the  
22 counsel discuss any of these documents, these other  
23 documents?

24 A No, not in -- not specifically. Again,  
01:12:00 25 all those other documents, those are published



01:12:04 1 journals or books, symposia reports that I have  
2 reviewed in the course of my activities as a  
3 research scientist.

4 Q In reviewing the documents that were  
01:12:16 5 provided to you by the various attorneys in this  
6 case, did you take any notes with regard to your  
7 actual review of these documents?

8 A Not very many notes at all.

9 Q Did you keep any of those notes that you  
01:12:30 10 took?

11 A There may be a few pieces of paper with  
12 notations on them that I have, yes.

13 Q Did you make any notations directly on the  
14 document, underlining or any type of marginal  
01:12:46 15 notations?

16 A Not to my recollection, no.

17 Q And you say that you have some notes  
18 that ---

19 A There may be some rather cryptic notes ---

20 Q Okay.

21 A --- here or there, yes.

22 Q Well, I would like to ask you to provide  
23 those to your attorneys, too, so that we might have  
24 a chance to review those.

01:13:04 25 A All right.

01:13:06 1

MR. SHELY: CTR's attorneys.

2

MR. THORPE: Correct. I stand

3

corrected.

4

5

(By Mr. Thorpe)

6

Q And for the record, I will - I will state that when I say "your attorneys," I am referring specifically to the attorneys for CTR. But as an expert witness, I am taking a little bit of liberty in saying "your attorneys."

01:13:30 10

11

A I understand.

12

Q Were you asked not to take any notes when you reviewed these documents?

13

14

A No, I wasn't. But I - the people at

01:13:48 15

16

Bryan Cave informed me that if I did take notes, that there was the possibility that I would be asked to produce them.

17

18

Q So, you - you were aware of that

19

particular issue prior to the time you reviewed those documents?

01:13:58 20

21

A Somewhere along the course of my review of those documents, that issue did come up.

22

23

Q Did you write any type of report or have any correspondence other than face to face or

24

01:14:14 25

telephone conversations with the attorneys for CTR

01:14:18 1 regarding this litigation?

2 A I haven't sent any letters to counsel.

3 Q Did you write any reports?

4 A I haven't written any reports that

01:14:28 5 summarize - summarize my review of documents.

6 Q And when I ask for documents or notes, I  
7 also, just to clarify, am including anything that  
8 you might have put into a computer or some type of  
9 storage device.

01:14:54 10 A There is one E-mail message that I sent to  
11 Rodney Ott.

12 Q And was that directly relating to this  
13 litigation?

14 A It was just -- It contained a few  
01:15:04 15 reflections of mine at an early stage in reviewing  
16 some of the documents.

17 Q Do you still have that E-mail?

18 A I believe I do have a copy of that, yes.

19 Q Could you also provide that to your  
01:15:18 20 lawyers?

21 A Sure.

22 Q Dr. Lukas, I may have asked you already -  
23 and if I have, I apologize - but do you anticipate  
24 you will review any other documents or data  
01:15:38 25 compilations in any form prior to testifying in this

01:15:40 1 particular case?

2 A I think the odds are high that I will be  
3 conducting more discovery in this case and reviewing  
4 other documents.

01:15:48 5 Q You will inform us through your lawyers of  
6 the other materials that are either provided to you  
7 or that you compile that will be used as a basis for  
8 your testimony; is that agreeable?

9 A Certainly. And just as in my disclosure,  
01:16:08 10 if I'm not mistaken, there is some indication of the  
11 documents that I have received.

12 Q And - but there will be probably  
13 subsequent depositions, other materials that may be  
14 provided to you. And it's important for us to have  
01:16:22 15 access to this material if it's going to be used to  
16 formulate your opinions or your testimony at trial.

17 A I understand.

18 Q So, I need - I need an agreement that  
19 you'll provide those.

01:16:30 20 A I certainly will.

21 Q In the documents that you've reviewed that  
22 were provided to you or that you had previously,  
23 have any of those documents been generated by  
24 lawyers for the CTR or the tobacco industry other  
01:17:10 25 than the affidavits that you - that you testified to

01:17:14 1 earlier?

2 A Well, I'm not exactly sure what the origin  
3 was of all of the documents. Again, the affidavits,  
4 the disclosure statements, the deposition testimony  
01:17:34 5 of Dr. Oparil, I'm certain that there's some hand of  
6 attorneys in preparing those.

7 Q I'm particularly interested in actual  
8 documents that were generated by any of the tobacco  
9 industry lawyers or any - or the CTR lawyers. Were  
01:17:56 10 you privy to these? Were they provided to you in  
11 any of that type of documentation?

12 A Again, I'm not certain - I'm not sure, for  
13 example, in preparation of the annual reports or the  
14 listing of special projects what roles any attorneys  
01:18:12 15 might have played in preparing those documents.

16 Q Have you seen any documents that were  
17 authored by lawyers from the firm of Shook & Hardy?

18 A Not to my recollection, no.

19 Q How about any that were authored by a  
01:18:26 20 Mr. Finnegan?

21 A Not to my recollection.

22 Q Any letters or documents authored by - by  
23 Mr. Jacob?

24 A Not to my recollection, no.

01:18:38 25 Q Are any of these law firms or lawyers

01:18:42 1 familiar to you?

2 A I don't - I don't recall reading anything  
3 that I could confidently associate with those  
4 attorneys or their law firms.

01:18:56 5 Q But that's a possibility? You just don't  
6 recall?

7 A It's a possibility, yes.

8 Q Dr. Lukas, do you recall ever reading any  
9 documents in the course of your reviewing for this  
01:19:1410 testimony where the CTR was called or was attributed  
11 that the CTR was a public relations front or a  
12 litigation shield for the tobacco industry?

13 A I believe that wording along those lines  
14 is present in the - in the Engle, the Texas, and the  
01:19:4215 Arizona Complaints.

16 Q Have you seen any other documents that  
17 were provided to you or that you have accumulated  
18 during your time in preparation for this litigation  
19 that state that - state those premises?

01:19:5820 A I think that -- I know that those premises  
21 were stated. But they may - reference may have been  
22 made to them, as well, within the affidavits  
23 submitted by Drs. McAllister, Lisanti, and Glenn.

24 Q Have you read any documents that  
01:20:1825 specifically discuss special projects of the CTR?

01:20:26 1 A The information pertaining to special  
2 projects, I believe, was predominantly from an  
3 affidavit of Dr. Glenn. And I believe that  
4 affidavit is listed in the disclosure statement for  
01:20:50 5 my testimony here in this deposition.

6 Q Have you ever been - asked or applied for  
7 a special projects grant?

8 A No, I have not.

9 Q Could you tell me what your understanding  
01:21:04 10 is of the special projects grant?

11 A My understanding of the special projects  
12 is that through some chain of events, about which  
13 I'm not entirely clear, that at least in some cases,  
14 attorneys for tobacco companies approached the  
01:21:22 15 scientific director of the Council for Tobacco  
16 Research with a request to evaluate the scientific  
17 merit of specific research projects and that the  
18 Council scientific staff rendered those opinions and  
19 ultimately administered grants that were given to  
01:21:44 20 investigators whose research was supported under the  
21 special projects program.

22 Q Do you know whether the scientific  
23 director of the CTR has any role in evaluating or  
24 choosing what grants might be funded under the  
01:22:00 25 special projects program?

01:22:00 1 A My understanding is that the scientific  
2 director does play such a role, yes.

3 Q Does the scientific director also play a  
4 role in funding - in choosing the grants that are  
01:22:12 5 funded under the regular CTR granting process?

6 A My understanding is that the scientific  
7 director does play such a role as a member of the  
8 Scientific Advisory Board for the Council for  
9 Tobacco Research and in the professional function as  
01:22:28 10 the scientific director of the Council.

11 Q Do the lawyers play -- Do you know --  
12 Strike that.

13 Do you know whether or not lawyers play an  
14 integral part in choosing and funding of special  
01:22:50 15 projects under the CTR?

16 A Well, as I related, my understanding is  
17 that somewhere in the process, at least some special  
18 projects were first brought to the attention of the  
19 CTR through tobacco industry attorneys.

01:23:12 20 My understanding is then, again, that the  
21 Council for Tobacco Research staff would render an  
22 opinion about the scientific merit of those projects  
23 and subsequently - and certainly play a role in  
24 deciding which ones were funded.

01:23:30 25 But I'm not certain as to whether the



01:23:32 1 attorneys who initially proposed those projects had  
2 any roles in deciding ultimately whether some  
3 projects were funded or not.

4 Q Are you aware that the attorneys - that  
01:23:42 5 attorneys are involved in the renewal process for  
6 the same project or special program grants?

7 A For the special projects, I wasn't  
8 explicitly aware of that, no.

9 Q Do you know whether or not the lawyers  
01:23:58 10 have a right to approve publication of the  
11 information that are generated from the special  
12 projects?

13 A I haven't seen any evidence that they play  
14 such a role, no.

01:24:10 15 Q Has any documentation to that effect been  
16 provided to you by any of the attorneys in this  
17 litigation?

18 A Well, the documentation that has been  
19 provided relates to things like listing of the  
01:24:24 20 individuals who obtained - who received special  
21 projects funding, listings of the publications  
22 emanating from special projects research, listings  
23 of journals in which that research was funded.

24 And in my review of the kinds of science  
01:24:44 25 and the substance of the science that was published

01:24:46 1 under funding from the special projects, I believe  
2 that that - that group of scientific pursuits is  
3 really seamless relative to the Scientific Advisory  
4 Board mediated grants-in-aid program, research that  
01:25:06 5 was published based on the grants-in-aid program.

6 Q Do you know whether the lawyers might be  
7 involved or have you read anything or are you aware  
8 that the lawyers are also able to suppress the  
9 publication or protect the information that is  
01:25:22 10 generated in special projects from disclosure to the  
11 public?

12 A I haven't seen any evidence to suggest  
13 that that occurs, no.

14 Q Exclusive of specific documentation or  
01:25:42 15 evidence, are you aware of this?

16 A I'm not aware of any such activities on  
17 the part of tobacco industry lawyers.

18 Q Dr. Lukas, are you aware of the CTR  
19 special accounts program?

01:26:06 20 A No, I haven't heard about or read anything  
21 pertaining to - anything pertaining to the CTR  
22 special accounts program.

23 Q Did you -- Were you provided with  
24 Dr. Glenn's testimony to the Waxman Committee?

01:26:24 25 A I believe that is one of the documents

01:26:24 1 that I have reviewed, yes.

2 Q And was there a mention or questions asked  
3 of Dr. Glenn about CTR's special accounts?

4 A To my recollection, I haven't - I don't  
01:26:40 5 recall reading anything about that in that - in that  
6 affidavit.

7 Q Well, I think this is - this is actually  
8 testimony or excerpts of testimony; but you don't  
9 recall them asking him questions or any answers or  
01:26:58 10 supplementation regarding special accounts?

11 A No, at the moment, I don't recall that.

12 Q So, as we sit here today, you are not -  
13 it's your testimony that you know - you do not know  
14 about CTR special accounts; is that correct?

01:27:18 15 A That is my testimony. And, again, unless  
16 there is some other name for that - that entity or  
17 those accounts, I don't recall seeing anything about  
18 special accounts in the documents that I have  
19 reviewed.

01:27:42 20 Q Dr. Lukas, are you aware that - aware of  
21 whether or not the CTR funds special project grants  
22 for researchers who testify on behalf of the tobacco  
23 industry?

24 A I'm aware of no such association.

01:28:00 25 Q And you have not seen any documentation

01:28:04 1 that addresses that issue?

2 A No, I haven't, none that -- I don't recall  
3 seeing anything that explicitly addresses that  
4 issue.

01:28:14 5 Q If the tobacco industry does ask someone  
6 to testify on their behalf before a legislative  
7 body, be it State or National, would it be important  
8 for those legislative bodies to know that these same  
9 people are also funded - their research is funded by  
01:28:34 10 tobacco interests such as the CTR?

11 A I imagine that's - that's something that  
12 would come out in disclosure. I don't know that  
13 there are any implications it would go beyond that,  
14 though.

01:28:48 15 Q But it would be important for a  
16 legislative body to know that the person who is  
17 testifying has possible financial ties in their  
18 granting or in their researches?

19 A I think it's a reasonable thing to be  
01:29:06 20 included in disclosure, yes.

21 MR. SHELY: Go off the record.

22

23 (AT THIS TIME A BRIEF RECESS WAS  
24 TAKEN, AND THE PROCEEDINGS THEREAFTER  
25 RESUMED AS FOLLOWS:)

01:29:28 1 Q Dr. Lukas, I want to digress for a  
2 minute. During the lunch break that we take - took  
3 just a little while ago, did you discuss any of your  
4 testimony with either Counsel that you - the  
01:35:36 5 testimony you've given today?

6 A No, I didn't.

7 Q Doctor, have you read any documents that  
8 discusses - that directly discusses lawyer  
9 involvement at the CTR?

01:35:56 10 A That directly discusses that? Again,  
11 aside from the complaints that I have seen that make  
12 reference to that and aside from a few entries in  
13 the Lisanti affidavit, there aren't - there aren't  
14 any other documents outside of those listed in the  
01:36:20 15 disclosure statement or the ones that I've mentioned  
16 so far that I've reviewed that pertain to lawyer  
17 interactions with the CTR.

18 Q And have you read any documents regarding  
19 the selection of -- Let me start that over again.  
01:36:40 20 Strike that.

21 Have you read any documents regarding the  
22 selection of scientists to receive CTR funds that  
23 was based on whether or not their past work was in  
24 line with the tobacco industry's position?

01:36:52 25 A I have seen no documents along those lines

01:36:56 1 at all, no evidence that that was a criteria in the  
2 selection of individuals to be funded.

3 Q And none of these documents were obviously  
4 provided to you; is that correct?

01:37:08 5 A If they exist, I haven't seen them.

6 Q Dr. Lukas, I have seen your C.V. And I am  
7 aware that you have other sources of funding beyond  
8 the CTR. And, so, you're familiar with the funding  
9 processes and the grant application process of other  
01:38:00 10 programs; is that correct?

11 A That is correct.

12 Q And you're - you're familiar with the -  
13 obviously familiar with the procedure that is done  
14 with regard to NIH funding?

01:38:16 15 A Yes, I am.

16 Q Have you received any funding other than  
17 CTR and NIH?

18 A Yes, I have.

19 Q And could you tell us some of the other  
01:38:30 20 funding that you have received for your research  
21 that's from tobacco-related - tobacco-related  
22 industries?

23 A From tobacco-related industries?

24 Q Yes.

01:38:42 25 A The Smokeless Tobacco Research Council, I

01:38:48 1 have had one grant with them a few years ago.

2 Q And was that grant given during a period  
3 of time that you were also receiving CTR funds, or  
4 was that in between?

01:39:04 5 A I think it was in between. But it's - I  
6 don't recall specifically if that information is in  
7 my C.V.

8 Q In your C.V., you've listed funds from the  
9 Biomedical Research Support Grant. Is that an  
01:39:18 10 internal grant?

11 A Biomedical Research Support Program is a  
12 spin-off from NIH, the National Institutes of  
13 Health. If a given institution receives funding  
14 over a threshold level, the National Institutes of  
01:39:34 15 Health gives a supplementary grant to the  
16 institution that is used to fund research projects  
17 or programs at the institution's discretion.

18 Q Do your grants from NIH include both  
19 direct and indirect funds?

01:39:54 20 A Yes. And I believe in my C.V., I have  
21 listed the quantities, probably in a couple of  
22 different ways, total direct costs, referring to  
23 direct costs that are at my disposal for use - for  
24 use in my research program.

01:40:12 25 Indirect costs, if they are mentioned, are

01:40:14 1 costs that go to the institution to cover  
2 administrative expenses involved in managing - the  
3 grants management office, running electricity and  
4 water, things of that sort.

01:40:26 5 And if I indicate total costs, it's the  
6 sum of the direct and indirect costs.

7 Q Does the CTR provide both direct and  
8 indirect costs?

9 A Yes, they do.

01:40:42 10 Q Are those broken down in your C.V. as to  
11 what are direct and what are indirect in terms of  
12 the CTR grants?

13 A I believe they are. They should be as -  
14 according to the procedure for entering that  
01:40:54 15 information that I just described.

16 Q Have you ever received funds from any  
17 other industry sources for your research?

18 A Well, in an indirect way, yes. There is a  
19 group called Epi-Hab Phoenix, Incorporated, which is  
01:41:24 20 an industrial concern. It's - it's more -- It's a  
21 rehabilitation concern. It is an effort to rehab  
22 epilepsy patients to get them back into the private  
23 sector after they've had some maybe damaging  
24 seizures.

01:41:40 25 And it is a not-for-profit organization.



01:41:44 1 But they do do subcontract work for electronics  
2 industries, building furniture, putting together  
3 mailings, things of that sort.

4 That organization provided some of the  
01:41:54 5 funds initially to establish my laboratory here at  
6 the Barrow Neurological Institute and some  
7 supplementary funding over the years to add to an  
8 endowment to fund neurochemical research and to  
9 provide capital expenditures to build new  
01:42:14 10 laboratories within the division of neurobiology.

11 So, in a way, that's - that's an  
12 industrial concern; and yet, it's - yet, it's not.

13 Q But you haven't received direct funding  
14 from industry for a particular type of project; is  
15 that correct?

16 A No, I have not received any industry money  
17 otherwise.

18 Q Have you received any funding that was  
19 contract funding?

01:42:38 20 A No, I haven't received any contract grants  
21 at all.

22 Q And you have not received any contracts,  
23 then, from CTR; is that correct?

24 A No.

01:42:48 25 MR. SHELY: "Yes," that's

1 correct?

2 A I mean, yes, that's correct, I have not  
3 received any - any funding - contract funding from  
4 the Council for Tobacco Research.

01:42:56 5 Q I was clear. Dr. Lukas, how important is  
6 it - how important is the design of a particular  
7 research project?

8 And when I - when I ask that question, I  
9 mean it in terms of how important is it in order for  
01:43:20 10 you to reach the - the hypothetical goal that you  
11 want to reach in your research that - how important  
12 is the design of the experiment itself?

13 A The experimental design is very critical  
14 to the construction of any research program in that  
01:43:40 15 it influences not only the results that are obtained  
16 but potentially also how they are interpreted.

17 Q And can -- And then in that same vein, can  
18 a flaw in the design influence the outcome of the  
19 research?

01:43:54 20 A Oh, it certainly can, yes.

21 Q And it can, also, then, influence whether  
22 the project succeeds or fails?

23 A Well, if success is measured in  
24 publications, it certainly could affect that. If  
01:44:14 25 success is measured in the ability to obtain

01:44:18 1 reliable results and interpretable results, then,  
2 yes, the design of an experiment is very critical to  
3 the success of a project.

4 Q And, for example, the design of the  
01:44:32 5 project is very important. It's one of the  
6 important criteria that NIH looks at in terms of  
7 when they review a grant; isn't that true?

8 A I think that's one of their principal  
9 criteria in evaluating proposals, yes.

01:44:50 10 Q Does the NIH have any input, your  
11 experience - but does the NIH have any input into  
12 the design of the experiments that you propose to  
13 them?

14 A Through the - what we call the  
01:45:02 15 grants-in-aid program, through the program of  
16 investigator-initiated research proposals that are  
17 then subsequently subjected to two levels of peer  
18 review, through the study section and through the  
19 NIH Councils. There isn't any input on research  
01:45:22 20 design, per se. It's left to the discretion of the  
21 investigator.

22 There may be some instances, though, when  
23 the study section says, "Well, we don't like the  
24 experimental design. We make - we'd like you to  
01:45:36 25 make some changes." Then the investigator would be

01:45:38 1 wise to listen to some of that advice of presumably  
2 learned colleagues and at least consider that in  
3 submitting a revised proposal or for that matter,  
4 designing their experiments independent of where  
01:45:52 5 they are funded.

6 Q In your experience with NIH, do lawyers  
7 have an input in making those decisions on  
8 modifications of experimental designs?

9 A Not to my knowledge. I don't believe  
01:46:04 10 attorneys play such a role.

11 Q And have - has the NIH ever -- Strike  
12 that. Does the NIH have any input into the  
13 publications that you prepare or the manuscripts  
14 that you prepare prior to publication?

01:46:26 15 A No. At that point, the investigator is  
16 left to publish at his or her discretion.

17 Q And they, therefore, have no control over  
18 what you publish; is that correct?

19 A That's correct. NIH does -- Coming back  
01:46:38 20 to your previous question, though, NIH does have  
21 other RFA's or contract work in which the scientific  
22 staff at NIH would, perhaps, make some broad  
23 suggestions about research design.

24 Q But that's not what - the type of grants  
01:46:54 25 that you have; is that correct?

01:46:56 1 A That's correct.

2 Q And an RFA is, in essence, a contract type  
3 of program?

4 A Well, no, actually I would draw some  
01:47:06 5 distinctions. So, there is -- At NIH, there are  
6 offered three different types of programs; one is  
7 the grants-in-aid program, where individual  
8 investigators initiate the ideas for a proposal,  
9 submit it to NIH. It's subjected to the two phases  
01:47:20 10 of peer review that I mentioned in the previous  
11 answer.

12 There are RFA's, as well, where NIH  
13 identifies areas where they need to flatten out  
14 their programmatic balance. There might be some  
01:47:36 15 areas of research where - that they feel is  
16 important but they aren't receiving high enough -  
17 enough or high quality enough proposals through  
18 the - an investigator-initiated project.

19 So, in some of those cases, maybe not the  
01:47:52 20 experimental design, but the themes of the research  
21 would be, in broad strokes, dictated by NIH.

22 In addition, NIH does fund some contract  
23 work. If there are some areas where they have  
24 someone in mind or a few people in mind to conduct a  
01:48:08 25 line of investigation, to balance out their

01:48:12 1 portfolio, to achieve a programmatic balance across  
2 an institute, then they will contract specifically  
3 with people to conduct research.

4 And in that case, there is a lot of input  
01:48:24 5 about experimental design, as well as the subject  
6 area to be studied through - by the NIH staff.

7 Q But - and in cutting out the possible  
8 interaction of intellectual property lawyers at the  
9 NIH, do you know whether or not NIH lawyers have any  
01:48:46 10 input in the design of the RFA or even the  
11 contracts?

12 A I don't know that there are many attorneys  
13 employed by NIH at all to function in such a  
14 capacity.

01:48:58 15 Q Have any NIH lawyers ever visited you to  
16 look over your research?

17 A No.

18 Q Have you ever been asked by the NIH to  
19 talk to their lawyers about your research?

01:49:06 20 A No.

21 Q When you publish your manuscripts, is it  
22 your practice to list all of the sources of funding  
23 as a footnote to the publications?

24 A Well, we would acknowledge the sources of  
01:49:30 25 funding for our research if the funds actually were

01:49:36 1 used in some way in conducting the research or  
2 preparing the article for publication.

3 Q But that's a requirement by the NIH, isn't  
4 it?

01:49:48 5 A I don't know that it's a requirement, but  
6 it is the common practice.

7 Q Have you ever functioned -- Strike that.  
8 Have you ever been on an NIH study  
9 section?

01:50:02 10 A Yes, I have.

11 Q And what was your role as a member of the  
12 study section?

13 A It was a - not a standing study section.

14 It was a special review group that functioned to  
01:50:16 15 review two grant proposals. Generally the special  
16 review groups are put together. If there is some  
17 controversy or dispute about whether a particular  
18 grant should get funded and a satisfactory

19 resolution hasn't been achieved through the study  
01:50:36 20 section, a special group of people is put together  
21 to review proposals, sometimes coupling that review  
22 with a site visit and on-site interaction with the  
23 investigators who are advancing that proposal.

24 Q And these study section members were  
01:50:52 25 chosen by the - or selected by the NIH; is that

1 correct?

2 A That's correct.

3 Q Did you have any lawyers in that study  
4 section?

01:50:58 5 A Not to my knowledge.

6 Q You have also been - functioned in site  
7 visits; is that correct?

8 A I functioned in one NIH site visit on that  
9 one occasion when I was a member of a special review  
01:51:1410 committee.

11 Q Were there any lawyers accompanying you at  
12 that site visit?

13 A Not to my knowledge.

14 Q Have you also reviewed grants?

01:51:2215 Oftentimes, as I understand it, people who have NIH  
16 grants are sometimes asked to review grants in a  
17 preliminary - in the preliminary stages of the grant  
18 proposal. Have you reviewed grants for the NIH?

19 A No, I haven't reviewed grants for NIH.

01:51:4220 Q Have you reviewed grants for the CTR?

21 A No, I have not.

22 Q Have you reviewed grants for any other  
23 granting agency?

24 A Yes. I have been a reviewer for the  
01:51:5425 National Science Foundation, for the United States



01:51:58 1 Israel Binational Science Foundation, for the  
2 Alzheimer's Association. There - there may be some  
3 other entries in my C.V. that also I have reviewed.  
4 I've been a member of a standing study section on  
01:52:18 5 nicotine for the California Tobacco-related Disease  
6 Research Program.

7 Q In any of these instances, have you  
8 provided your - the results of your review to  
9 attorneys for these organizations?

01:52:30 10 A Not to my knowledge, no.

11 Q Could you -- Mostly for the edification of  
12 those of us who are not in the field, could you tell  
13 us a little bit about the mechanism of - that -  
14 that's typically used for assessing scientific merit  
01:52:58 15 and eventual funding of a project in just a  
16 thumbnail sketch?

17 A Well, it's a - a complex and  
18 multifactorial set of criteria that are usually  
19 applied. But if I examine a grant proposal, I look  
01:53:22 20 for things such as the quality, the soundness of the  
21 experimental design, whether the idea that the  
22 investigators wish to pursue is an interesting one  
23 and one that is worthy of effort.

24 I evaluate the likelihood that the  
01:53:42 25 experimental approaches they will take will produce

01:53:46 1 the results that they seek to obtain. Part of the  
2 evaluation is judging whether the results that they  
3 might hope to obtain could be used to come to some  
4 sort of conclusion as to the hypotheses they  
01:54:02 5 advance.

6 We would evaluate conceptually, as well,  
7 the hypothesis that's advanced and the general - the  
8 potential contribution of that work and those  
9 hypotheses and concepts to advances in the field.

01:54:18 10 And another element is evaluation of the  
11 investigator. "Does this investigator have a track  
12 record of producing quality research, and is it  
13 likely that they can conduct the research in the  
14 stated amount of time with the resources that they  
01:54:34 15 asked for and have access to?"

16 Those are among the elements that are used  
17 to evaluate and grade proposals. And then once all  
18 of that is done, typically someone on a study  
19 section will have the - an opportunity to review  
01:54:52 20 several grants. And there's some mental functioning  
21 to rank them, as well.

22 Unfortunately, there are far too little  
23 funds to fund all the meritorious research. And  
24 some very difficult decisions are made, not so much  
01:55:10 25 in culling out research that isn't worthy of support

01:55:14 1 but of the mass of research that is truly worthy of  
2 support, ranking them and hoping to go as deep into  
3 the pockets of the grant-giving organization to fund  
4 as many people as possible.

01:55:24 5 Q And it's the role of the study section to  
6 assign priority scores to the grant proposals?

7 A That's correct. That's one of the charges  
8 that's given to the members of the study section ---

9 Q And ---

01:55:34 10 A --- individually and collectively.

11 Q And then the study section then gives  
12 their findings and recommendations to another group;  
13 is that correct, the Executive Council?

14 A So, their - their -- In different  
01:55:48 15 organizations, it's different. At NIH, it goes to  
16 the Council. And the Council then will take those  
17 recommendations under advisement.

18 And some of the smaller organizations,  
19 such as the California Tobacco-Related Disease  
01:56:06 20 Research Program, the administrative staff then  
21 follow-up and make the ultimate decisions about what  
22 grants get funded, sometimes influenced by whether  
23 the investigator might have come into funding for  
24 this project through some other means.

01:56:18 25 Q So, there are other - other criteria that

01:56:20 1 may influence actual funding other than just the  
2 priority scores?

3 A That's correct. For example, my  
4 understanding at NIH, as well, is that there are -  
01:56:32 5 that some funds are reserved to, for the most part,  
6 follow the rank order of proposals, the judgments  
7 and merit of proposals.

8 But there are additional funds called  
9 discretionary funds that can be used according to  
01:56:50 10 the discretion of the staff at NIH to fund projects  
11 that don't necessarily follow next, that would be  
12 the next grant in line to get funded.

13 Q So, in fact, low priority scores - and  
14 when I say "low priority scores," they use a  
01:57:04 15 reverse, don't they ---

16 A Uh-huh.

17 Q --- at NIH?

18 A Uh-huh.

19 Q Even though you get a - let's say a good  
01:57:08 20 priority score, that doesn't necessarily mean you  
21 are going to get funded?

22 A That's right.

23 Q And that will be up to the next stage  
24 after the study section and possibly even after the  
01:57:20 25 Council?

01:57:20 1 A That's correct.

2 Q In your experience with NIH and your  
3 experience with the National Science Foundation, the  
4 other organizations that you have interacted with in  
01:57:32 5 granting - in grants, is it customary for the  
6 lawyers to be involved in this institutions grant  
7 process?

8 A Not to my understanding, no.

9 Q And, again, I'm excluding intellectual  
01:57:46 10 property lawyers.

11 A Uh-huh.

12 Q Dr. Lukas, could you tell us what you know  
13 about the CTR contract program; and is it still in  
14 existence?

01:58:02 15 A Well, my understanding is that the  
16 contract program is no longer in existence. My  
17 understanding is that it ran a course for a little  
18 over ten years or so and funded some research  
19 related to tobacco use and issues of health and  
01:58:16 20 disease.

21 Q Do you recall in your reading or the  
22 materials that you've reviewed the names of any  
23 CTR contractees?

24 A The names of the investigators, I know  
01:58:34 25 there - well, there's one contract, Microbiological

01:58:36 1 Associates, that was one of the grantees under the  
2 contract program through the CTR.

3 Q Was one of the contractees -- Are you  
4 familiar with Dr. Homburger?

01:58:50 5 A And Homburger, as well. I believe that  
6 was an investigator somewhere in New England who,  
7 also, I believe received some contract funds.

8 Q Did the CTR have the right to restrict  
9 publication of the information generated by CTR  
01:59:12 10 contracts?

11 A That's something I can't be precise about  
12 because I don't know what the contracts read. But  
13 it is not irregular under a contractual agreement  
14 for the grant-giving agency to have some control  
01:59:32 15 over what is published or how reports are put  
16 together.

17 Q Should these - these people who provide  
18 the contract funds have total control over  
19 publication?

01:59:44 20 A Again, I have no basis for addressing that  
21 precisely. It depends on what the stipulations are  
22 in the contract.

23 Q In your opinion - and let me give you a  
24 hypothetical - if you were a contractee and you were  
02:00:00 25 doing research for someone in an industry and your

02:00:04 1 results - the results of your contract studies  
2 showed that the particular thing that you were  
3 studying was very detrimental to human health and -  
4 would it then - would you have an obligation to  
02:00:18 5 bring this to light, or would you allow it to be  
6 held by the company itself under the rule - under  
7 the contract rule saying that they have the right to  
8 control publication?

9 A Well, that would depend. It would depend  
02:00:34 10 on what the stipulations are in the contract, first  
11 of all. And there would be -- I would have to have  
12 more information about what was in the contract  
13 before I would be able to make - make a decision as  
14 to what I would do in the same circumstances.

02:00:54 15 Q Let me rephrase or modify my hypothetical  
16 and say that your results in this particular  
17 hypothetical was that the substance that you were  
18 studying was detrimental to the level that it could  
19 cause human death, same situation.

02:01:14 20 A Again, there may be provisions in the  
21 contract that would bind or constrain me in some  
22 way. And if - if there were - and if, in fact, I  
23 had some reason to believe that some people might be  
24 in danger, then that definitely would cause a bit of  
02:01:36 25 a - a bit of a conflict for me.

02:01:40 1 Q Would you publish the material?

2 A Again, that would depend on what - on what

3 the stipulations are in the contract.

4 Q Even if it was going to take someone's

02:01:56 5 life?

6 A I would - certainly would seek counsel and

7 get some advice as to where - what to do to balance

8 out the legal ramifications with the ethical

9 ramifications.

02:02:12 10 Q Dr. Lukas, you have a faculty association

11 with both the University of Arizona and Arizona

12 State University; is that correct?

13 A That's correct.

14 Q Do you know whether either A.S.U. or the

02:02:26 15 University of Arizona have any policies regarding

16 accepting CTR or tobacco industry-related funds?

17 A To my knowledge, they have no - no

18 policies along those lines.

19 Q Are there a number of institutions around

02:02:48 20 the United States who have now formulated policies

21 of not accepting CTR or tobacco-related funds?

22 A Not to my knowledge. I haven't -- I'm not

23 aware of such - such policies.

24 Q Dr. Lukas, I would like to present for

02:03:14 25 your perusal an exhibit that's marked as -



02:03:22 1 originally marked as Deposition Exhibit No. 9. I  
2 believe it was attached to Dr. Oparil's deposition.

3 It is a letter that I would like marked in  
4 this deposition. And it's a letter - the letterhead  
02:03:38 5 is entitled "Massachusetts General Hospital Policy  
6 on Research Support from the Council for Tobacco  
7 Research - U.S.A., and the Smokeless Tobacco  
8 Research Council."

9 I would like to go off the record for a  
02:03:54 10 few minutes so that you can look over this  
11 particular document (Tendering).  
12  
13

(WHEREUPON, A FOUR-PAGE DOCUMENT  
14 WAS MARKED FOR IDENTIFICATION  
15 PURPOSES AS EXHIBIT NO. 2. SAME WILL  
16 BE FOUND AT THE CONCLUSION OF THIS  
17 DEPOSITION.)  
18

(AT THIS TIME A BRIEF RECESS WAS  
19 TAKEN, AND THE PROCEEDINGS THEREAFTER  
20 RESUMED AS FOLLOWS:)  
21  
22

23 (By Mr. Thorpe)

24 Q Dr. Lewis (sic), during our break, have  
02:18:40 25 you had an opportunity to look over the letter I've

02:18:46 1 marked as Deposition Exhibit No. 2?

2 A Yes, I have.

3 Q And you are now familiar with the contents  
4 of that letter?

02:18:52 5 A Yes, I have.

6 Q Could you summarize the contents of the  
7 letter for us, please?

8 A The contents of the letter relate to the  
9 policy that the Massachusetts General Hospital  
02:19:06 10 developed regarding research support from the  
11 Council for Tobacco Research and the Smokeless  
12 Tobacco Research Council.

13 They have decided as policy to not - to -  
14 to - to have their investigators not ask for Council  
02:19:22 15 for Tobacco Research or Smokeless Tobacco Research  
16 funding beginning in - on July 1st, 1994 and that as  
17 of July 1st, 1996, they would refuse to accept all  
18 support from those sources.

19 The - they lay out some provisions for  
02:19:42 20 helping individuals who might have been adversely  
21 affected in that their research support might have  
22 fallen due to the termination or the inability to  
23 renewal their funding through the CTR or Smokeless  
24 Tobacco Research Council. And there is an  
02:20:02 25 introductory paragraph or two that lay out the

02:20:10 1 premises on which the policy is based.

2 Q And what was the rationale that is stated  
3 in this letter for their no longer accepting CTR or  
4 tobacco money?

02:20:22 5 A Well, these are - these paragraphs are  
6 rather lengthy. I don't know that we need to read  
7 them into the record. Or would you like me to?

8 Q Just what your understanding of the  
9 rationale is as stated in this particular letter.

02:20:38 10 A My understanding of the rationale is that  
11 because their - first of all, that their - they  
12 suggest that they're not just as an association or -  
13 between tobacco and certain illnesses but that, to  
14 quote it, that use of tobacco products or secondary  
02:21:00 15 exposures to tobacco smoke causes a variety of  
16 debilitating and life-threatening human diseases.  
17 That is one of the premises here.

18 Another paragraph suggests that "despite"  
19 that, quote, "overwhelming contrary evidence, the  
02:21:14 20 tobacco industry has steadfastly maintained the  
21 link" - "that the link between tobacco and disease  
22 remains unproven," end quote.

23 And then they discuss how the Council for  
24 Tobacco Research and the Smokeless Tobacco Research  
02:21:34 25 Councils were established by the tobacco company.

02:21:34 1 They are concerned that there might be a conflict of  
2 interest in people - in that people who are funded  
3 by the Council for Tobacco Research, the Smokeless  
4 Tobacco Research Council might have a conflict of  
02:21:50 5 interest.

6 The Massachusetts General Hospital, in  
7 accepting funds from the Council for Tobacco  
8 Research, Smokeless Tobacco Research Council feels  
9 it would enter into a bit of a conflict of interest  
02:22:04 10 in that the Mass General Hospital was undertaking  
11 some other initiatives to ban and limit smoking in -  
12 on the hospital premises and, in general, discourage  
13 the use of tobacco products.

14 Q Based on the date of the letter, when did  
02:22:26 15 the Mass General institute this policy?

16 A The letter is dated March 18th, 1994.

17 Q Thank you. Dr. Lukas, prior to the time  
18 that we received your disclosure statement and the  
19 other documents that were associated with the  
02:22:52 20 disclosure, we were provided a two-page letter  
21 regarding your testimony as a fact witness as well  
22 as expert opinions.

23 I'm going to ask you to look this document  
24 over (Tendering).

02:23:12 25 MR. SHELY: Can I see it,

02:23:14 1

please?

2

MR. THORPE: In fact, I'll

3

provide it to the attorney.

4

Would you mark that, please.

5

6

(WHEREUPON, A TWO-PAGE DOCUMENT

7

WAS MARKED FOR IDENTIFICATION

8

PURPOSES AS EXHIBIT NO. 3. SAME WILL

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BE FOUND AT THE CONCLUSION OF THIS

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DEPOSITION.)

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12

(By Mr. Thorpe)

13

Q Dr. Lukas, have you had opportunity to -

14

or have you seen this document before today?

02:24:24 15

A I believe that I have, yes.

16

Q Did you write this document?

17

A I -- What do you mean by "write"?

18

Q Did you actually draft this document?

19

A I had discussions with Rodney Ott about

02:24:44 20

the content of the document. And we agreed about

21

its content and substance and the wording of each of

22

the phrases.

23

Q And is this the only draft of this

24

particular letter that was made, or were there

02:24:58 25

previous drafts?

02:25:00 1 A I'm not -- The draft was - of that  
2 document was prepared by Rodney Ott. I'm not -- I  
3 don't recall how many other drafts there were. But  
4 I believe that I have had the opportunity to review  
02:25:18 5 a provisional version of that.

6 And - but all of the - that was my final  
7 decision as to whether the statements that are in  
8 that document reflect my opinions.

9 Q In -- You stated that you saw a  
02:25:38 10 provisional draft. Did you make actual corrections,  
11 modifications of that provisional draft?

12 A As far as I recall, in - any corrections  
13 that were made, would have been made on the basis of  
14 telephone conversations that I had with Mr. Ott.

02:26:00 15 But I have seen that - that document insofar as it's  
16 part of the disclosure statement in its final form.

17 Q Do you have -- Do you still have a copy of  
18 that provisional draft that was made, the first  
19 draft of this document?

02:26:12 20 A I'm not certain that I do.

21 Q If you would look, I would ask that you  
22 produce that provisional draft and any other drafts  
23 of this document up and to the final draft.

24 A All right. All right.

02:26:32 25 Q Since the final draft of this document has

02:26:56 1       been produced and provided to us, have you changed  
2       your opinion with regard to any of the six  
3       enumerated positions ---

4       A           No.

02:27:06 5       Q           --- of this draft?

6       A           No, I have not.

7       Q           Subsequent to this deposition, do you  
8       intend to modify or change any of the opinions that  
9       are being - are presented in this particular draft?

02:27:20 10      A           Not unless my opinion changes subsequent  
11      to today.

12      Q           Dr. Lewis, pursuant - or Lukas, I'm  
13      sorry - pursuant to the case management order in  
14      this particular lawsuit, you also provided the State  
02:28:06 15      of Texas with a draft of your opinions that you  
16      intend to testify on in this particular case.

17                   I would like to have you look at the  
18      document that was provided to us regarding your  
19      opinions. And I would like to discuss that in some  
02:28:26 20      detail at this time (Tendering).

21                   MR. SHELY: Do you have an extra  
22      copy of that?

23                   MR. THORPE: Yeah, that I do  
24      have.

02:28:40 25      MR. SHELY: I would like to have

02:28:40 1

that in front of me.

2

MR. THORPE: This is the full

3

disclosure (Tendering).

4

5

(By Mr. Thorpe)

6

Q Dr. Lukas, have you seen that document

7

before?

8

A Yes, I have.

9

02:29:10 10

MR. THORPE: I would like to  
have the Court Reporter mark this as  
Exhibit No. 4, I believe.

11

12

13

(WHEREUPON, A FIVE-PAGE DOCUMENT

14

WAS MARKED FOR IDENTIFICATION

15

PURPOSES AS EXHIBIT NO. 4. SAME WILL

16

BE FOUND AT THE CONCLUSION OF THIS

17

DEPOSITION.)

18

19

(By Mr. Thorpe)

02:29:26 20

Q I would like you to keep a copy, as we're  
going to go through the opinions that you have  
enumerated in this particular document. Are you  
ready?

21

22

23

24

A Uh-huh.

02:29:46 25

Q Dr. Lukas, the document that's presented



02:29:50 1 as Deposition Exhibit 4, the first enumerated  
2 paragraph states that you intend to offer expert  
3 opinions on - and this is, quote, "CTR is and has  
4 been a legitimate institution involved in the  
02:30:06 5 funding and administration of biochemical" -

6 "biomedical grants and contracts. CTR has  
7 performed an important service to the biomedical  
8 community through its 'grants-in-aid' research  
9 program and its research contracts, both funded by  
02:30:22 10 CTR with the advice of its Scientific Advisory  
11 Board," parentheses, "(SAB)," end parentheses. Is  
12 that a correct reading of your opinion?

13 A Yes, it is. Well, it was "grant-in-aid"  
14 not "grants-in-aid."

02:30:38 15 Q I don't read very well. Is this still  
16 your opinion, Doctor?

17 A Yes, it is.

18 Q And what did you base your opinion on in  
19 formulating this statement?

02:30:56 20 A My opinion is - is based on my immediate  
21 involvement with the CTR as a grantee, of my  
22 knowledge of the sorts of research projects that the  
23 Council for Tobacco Research has funded over the  
24 years, both through its grants-in-aid program and  
02:31:14 25 the special projects program, as well as the

02:31:14 1 contract program.

2 And as judged by the quality of the  
3 investigators, the institutions they've been  
4 associated with, and the research publications that  
02:31:30 5 have been emanated from investigators as allowed by  
6 the fact that those research programs were supported  
7 by Council for Tobacco Research funds.

8 Q Dr. Lukas, have you seen this document?  
9 It's entitled - it's captioned "The Council for  
02:32:10 10 Tobacco Research U.S.A., Inc." And it's called the  
11 "Statement of Policy." Have you seen this document  
12 prior to today (Tendering)?

13 A Yes, I believe that this is a document  
14 that accompanies materials that are sent to people  
02:32:28 15 who inquire about the grants program. And they may,  
16 as well, accompany non-competing renewal application  
17 materials that are sent prior to the anniversary  
18 date of proposals so that the Council can go through  
19 the administrative process of continuing grant  
02:32:46 20 funding for projects that they've already deemed  
21 worthy of funding.

22 Q So, all - all individuals who apply for  
23 grants receive a copy of this document; is that  
24 correct?

02:32:56 25 A To my recollection, that's the case, yes.

02:32:58 1 MR. THORPE: I would like to  
2 mark that as the next exhibit.  
3

4 (WHEREUPON, A ONE-PAGE DOCUMENT  
5 WAS MARKED FOR IDENTIFICATION  
6 PURPOSES AS EXHIBIT NO. 5. SAME WILL  
7 BE FOUND AT THE CONCLUSION OF THIS  
8 DEPOSITION.)  
9

10 (By Mr. Thorpe)

11 Q Dr. Lukas, in the Statement of Policy,  
12 under Roman Numeral I, the general policy states  
13 that "the Council for Tobacco Research - U.S.A.," in  
14 parentheses, "(The Council)" states that it "is  
02:33:40 15 dedicated to supporting the investigation of  
16 fundamental matters relating to a connection between  
17 tobacco use and human health. And in doing so, the  
18 Council recognizes the importance of independent  
19 research by competent investigators. Grants are  
02:33:56 20 made only after careful consideration of the  
21 individual undertaking the work and his or her  
22 work" - "and his or her institution." Is that a  
23 correct reading of that policy statement?

24 A Yes, it is.

02:34:12 25 Q And in the next paragraph, it states that

02:34:12 1 "The Council desires to have scientists work within  
2 the greatest freedom, without domination of any  
3 kind." What do you interpret that to mean?

4 A Well, that - that is Council desires to  
02:34:30 5 act as any other grant-giving agency, regardless of  
6 the source of the funds that will ultimately be  
7 distributed to investigators in that the  
8 investigators are invited to submit proposals of  
9 their own design and that as if - if an investigator  
02:34:48 10 is - has a project that is deemed worthy of funding,  
11 that it is at the sole discretion of that  
12 investigator how that project would progress and how  
13 the results from that project would be published and  
14 interpreted.

02:35:06 15 Q This - this paragraph goes on to say, "It  
16 will make no attempt to direct the administration of  
17 a project once started, to influence its course or  
18 to control its results, other than to assure itself  
19 that the funds are properly expended for the  
02:35:22 20 purposes of the grant and that all findings are  
21 reported in accordance with the best scientific  
22 practice." Is that correctly read this time?

23 A Yes, it is.

24 Q And is it your understanding that the CTR  
02:35:38 25 adheres to this stated general policy?

02:35:44 1 A I am not aware of any instance personally  
2 where this policy has not been adhered to. And I  
3 have no reason to think that this - this policy has  
4 been violated, no.

02:36:00 5 Q And, thus, the - one of the stated  
6 missions of the CTR is to fund research to answer  
7 questions about whether or not cigarette smoking is  
8 dangerous to human health; is that correct?

9 A Well, it states here a connection between  
02:36:20 10 tobacco use and human health. And I think it's  
11 reasonable to suggest that there - one issue that  
12 would be addressed is whether cigarette smoking is  
13 dangerous to human health, yes.

14 Q The predominant use of tobacco is through  
02:36:36 15 cigarette smoking; isn't that correct?

16 A Yes, that's my understanding.

17 Q Doctor, are you aware of an article or  
18 have you been provided with an article that appeared  
19 in the February 11th, 1993 Wall Street Journal that  
02:36:52 20 was written about or concerning Dorothy Cohen, who  
21 was a 24-year employee of the CTR; and she was  
22 quoted as saying that "the CTR is just a lobbying  
23 thing. We were lobbying for cigarettes." Are you  
24 aware of that statement?

02:37:10 25 A No, I haven't read that article.

02:37:12 1 Q Have you seen -- You have not seen that  
2 Wall Street article?

3 A No, I have not seen that.

4 Q Have you seen any documents - and I've  
02:37:22 5 asked you that question earlier, but I'd like to  
6 reask you - any documents - internal documents or  
7 documents that have been provided to you that state  
8 that the CTR was formed as a P.R. mechanism and that  
9 it was an industrial - or an industry shield for the  
02:37:40 10 tobacco industry?

11 A I believe that statements of similar  
12 substance are elements in some of the complaints  
13 that I have examined. But I haven't -- And, so,  
14 some documents to - I have reviewed some documents  
02:38:06 15 to that effect, including the Engle, Texas, and  
16 Arizona Complaints.

17 Q In fact, fraud and an area called RICO is  
18 one of the main issues or one of the issues in the  
19 Texas Complaint against CTR; isn't that correct?

02:38:22 20 A Fraud? I'm sorry. I don't ---

21 Q In RICO. Do you know what "RICO" stands  
22 for?

23 A No. I'm sorry, I don't.

24 Q Racketeering and corrupt influences. Do  
02:38:34 25 you remember reading that in the Texas Complaint?

02:38:38 1 A There may have been -- Vaguely. I have a  
2 vague recollection of reading that, yes.

3 Q And you're aware that the CTR has been  
4 named as a Defendant and accused of corrupt and  
02:38:48 5 racketeering activities; is that correct?

6 A I didn't know -- I didn't realize that -  
7 in those terms. But, yes, I can understand that  
8 that might be an element of that Complaint.

9 Q Do you know -- Are you familiar with the  
02:39:02 10 Committee of Counsel, the Committee of General  
11 Counsel with regard to the CTR?

12 A No, I am not.

13 Q Do you know or are you familiar with the  
14 Ad Hoc Committee of the CTR?

02:39:12 15 A No, I am not.

16 Q Have you read about or are you familiar  
17 with the Industry Research Committee?

18 A No, I am not.

19 Q You have been provided no documents that -  
02:39:26 20 that either address any of these entities or discuss  
21 any of these entities?

22 A No, I haven't to my knowledge.

23 Q So, you have no idea what the role of  
24 these different entities are with regard to CTR or  
02:39:42 25 with regard - with regard to the tobacco industry?

02:39:48 1 A No, I haven't read any documents  
2 pertaining to those entities.

3 Q Dr. Lukas, could you explain to us the  
4 process by which someone applies for a CTR grant?

02:40:34 5 A Well, that may have changed over the  
6 years. And just as statements of policy, for  
7 example, may have changed over the years.

8 But my understanding of the current  
9 process is that an investigator initially contacts,  
02:40:52 10 the typical approaches, to contact someone at the  
11 Council for Tobacco Research to ask about the  
12 research program.

13 Someone who continues to be interested is  
14 asked to submit a preliminary proposal that is quite  
02:41:10 15 brief, that is reviewed, my understanding, by the  
16 Scientific Advisory Board, at least one or two  
17 members of the Scientific Advisory Board, and given  
18 a provisional sort of ranking.

19 Individuals who might - whose proposals  
02:41:28 20 might have a reasonable chance of being funded are  
21 then invited to submit full proposals sometime  
22 later.

23 Those full proposals, to my understanding,  
24 are reviewed by the entire Scientific Advisory  
02:41:40 25 Board, from time to time, also reviewed by outside



02:41:46 1 referees. And at a meeting of the Scientific  
2 Advisory Board, the proposals are ranked. And  
3 provisional decisions are made about funding of  
4 those proposals.

02:41:58 5 And then the scientific staff at the  
6 Council has the - makes the ultimate decisions about  
7 which grants are to be funded and in what amounts.

8 Q Who makes the final decision at the CTR as  
9 to whether a grant will be funded?

02:42:20 10 A I'm not certain about that. But I think  
11 it is the scientific director on the advice of the  
12 Scientific Advisory Board and the rest of the  
13 scientific staff.

14 Q Do you know whether any attorneys or  
02:42:38 15 lawyers involved with either the CTR or the tobacco  
16 industry have any role in the decision as to the  
17 final - final decision as to who gets a grant?

18 A To my understanding, in the grants-in-aid  
19 program, I don't believe there is any attorney  
02:42:54 20 involvement.

21 Q Does the scientific director -- Strike  
22 that.

23 Is the scientific director of the CTR the  
24 person who chooses whether a grant will be funded  
02:43:08 25 under the grants-in-aids or whether it will be

02:43:10 1 funded under special projects or contracts in the  
2 past?

3 A In the past -- Well, currently, I don't  
4 know that there is a special project program or a  
02:43:24 5 contract program. Are you - are you asking about my  
6 understanding of the now suspended special projects  
7 and/or contract programs?

8 Q Yes. I'm talking about during the period  
9 of time when - when contracts, special projects, and  
02:43:44 10 grants-in-aid were all being funded.

11 A Uh-huh.

12 Q Who was the final arbiter in choosing to  
13 fund under any of those three agents?

14 A My understanding is that the scientific  
02:43:58 15 director is the - has that ultimate responsibility.

16 Q Is it his - his decision alone, or are  
17 there other people involved? Or do you know?

18 A I don't know precisely. But my  
19 understanding is that, again, that on advice - on  
02:44:26 20 advice of a Scientific Advisory Board and the  
21 scientific staff, the ultimate responsibility for  
22 deciding about grants rests with the Scientific  
23 Advisory Board - with the scientific director.

24 Q Do you know whether or not the grants that  
02:44:46 25 are funded are funded - one of the criteria for

02:44:52 1 funding is whether these grants are of benefit to  
2 the industry - the tobacco industry or not?

3 A To my knowledge, that isn't something that  
4 enters into the equation.

02:45:06 5 Q Dr. Lukas, do you know who Dr. Robert  
6 Hockett was or is?

7 A Dr. Robert Hockett was involved in the  
8 Council for Tobacco Research. To my recollection,  
9 he may have been the Scientific Advisory Board - the  
02:45:24 10 scientific director for some time. I would have to  
11 review documents to refresh my memory to be certain  
12 about that.

13 Q I would like to show you a document that's  
14 dated 3-28-73. It's handwritten. And it's - there  
02:45:42 15 is a number of things in it, including relevance  
16 rating of certain grant proposals.

17 I would like to show this to your Counsel  
18 and then have you look at that document.

19 MR. SHELLEY: Are you going to  
02:45:56 20 mark it?

21 MR. THORPE: Yes, I'm going to  
22 mark it.

23  
24 (WHEREUPON, A TWO-PAGE DOCUMENT  
25 WAS MARKED FOR IDENTIFICATION

1 PURPOSES AS EXHIBIT NO. 6. SAME WILL  
2 BE FOUND AT THE CONCLUSION OF THIS  
3 DEPOSITION.)  
4

5 (By Mr. Thorpe)

6 Q Dr. Lukas, this is - I'm not exactly sure  
7 who initiated this. It appears to be an H. Wake.  
8 Are you familiar with a Dr. Wake?

9 A No, I'm not familiar with a Dr. Wake.

02:47:0210 Q But you are familiar with Dr. Robert  
11 Hockett; is that correct?

12 A I believe, yes, as I stated before, that  
13 Dr. Hockett was perhaps the scientific director of  
14 the CTR for a period of time.

02:47:1615 Q Could you read the handwritten note that  
16 is - accompanies this relevancy rating scale?

17 A Yes. It addressed to "Dr. Robert Hockett -  
18 CTR. Bob: I have rated," quote, "'industry  
19 relevance,'" end quote - there's a word that I can't  
02:47:4420 clearly read - "projects discussed at the recent SAB  
21 meeting," period. "These ratings are given," quote,  
22 "'informally,'" end quote, "and only represent an  
23 idea of which ones might have greatest benefit to  
24 the industry," period. "Use them for what you  
02:48:0225 think they might be worth and throw the paper away,

02:48:08 1 H. Wake.".

2 And then there are - there is kind of a -  
3 presented in tabular form is a proposal with some  
4 sort of code number, perhaps a name, perhaps the  
02:48:26 5 surname of the principal investigator and then the  
6 relevance rating scale of 1 to 5.

7 Q Would you agree that this document  
8 suggests that industry relevance may be a criteria  
9 for the decision whether or not a grant will be  
02:48:42 10 funded or not?

11 A No, not necessarily.

12 Q What's your - what's your interpretation  
13 of this particular document?

14 A My interpretation of this is that there  
02:48:54 15 may have been someone who had an interest in a  
16 benefit to the industry. But I don't know that that  
17 necessarily had any impact on decisions that were  
18 made by the Scientific Advisory Board or Dr. Hockett  
19 about which one of these grants would get funded.

02:49:14 20 Q Isn't it true that this particular  
21 handwritten statement has in quotes, quote,  
22 "industry relevance," end quote?

23 A That's right.

24 THE WITNESS: And for the Court  
02:49:22 25 Reporter, I forgot to close quotes

02:49:26 1 after "industry relevance" in my  
2 previous reading of that.

3 Q And the writer of this document also  
4 suggests that once this document is read, it should  
02:49:34 5 be thrown away; is that correct?

6 A That's correct.

7 Q Dr. Lukas, turning back to your opinion  
8 report, the second paragraph of this report states  
9 "SAB members have consistently been scientists of  
02:50:06 10 high accomplishment, with outstanding reputations in  
11 the scientific community. The collective experience  
12 and expertise of the SAB membership has been  
13 impressively broad." Is that a correct reading of  
14 your opinion?

02:50:18 15 A Yes, again, not correcting for grammatical  
16 matters.

17 Q Well, we'll attach this; and that will  
18 make it easier. Is this still your opinion,  
19 Dr. Lukas?

02:50:32 20 A Yes, it is.

21 Q And what do you base your opinion with  
22 regard to this statement?

23 A From my review of the roster over the  
24 years of the Scientific Advisory Board, the Council  
02:50:44 25 for Tobacco Research, my understanding before March

02:50:50 1 of this year as well as based on information that I  
2 have obtained since then about the SAB board  
3 members. And essentially those are the documents  
4 that - that's - those are the - that's the basis for  
02:51:10 5 my opinion about that.

6 Q What is the role of the SAB members in the  
7 CTR granting process?

8 A Well, as I mentioned before, my  
9 understanding is that the SAB plays roles  
02:51:26 10 in two phases of review of individual  
11 investigator-initiated proposals that are submitted  
12 to the Council for Tobacco Research, judging which  
13 of those proposals at first glance might be  
14 competitive for the limited resources, funding  
02:51:48 15 resources available, and ultimately making decisions  
16 in ranking, full proposals that are submitted after  
17 the initial review.

18 Q And, again, you have testified earlier  
19 that the SAB rankings and decisions are not the  
02:52:06 20 final step in someone receiving fundings, correct?

21 A To my understanding, they're not the final  
22 step. But my understanding, also, is that it plays  
23 a very important role in ranking proposals for  
24 funding.

02:52:20 25 Q And earlier, I also asked you whether or

02:52:22 1 not you knew if lawyers were involved in the actual  
2 funding decisions; is that correct?

3 A Yes.

4 Q And you stated you did not know?

02:52:34 5 A That's right.

6 Q Dr. Lukas, after your Counsel takes a look  
7 at these letters, I would like to show you a series  
8 of letters from the law offices of Jacob & Meninger  
9 and Shook, Hardy & Bacon.

02:53:08 10 MR. SHELY: Let's see. The  
11 first -- We've only got a piece of  
12 the first letter, just the front  
13 page.

14 MR. THORPE: So do I. So, I'll  
02:53:34 15 withdraw that.

16 MR. SHELY: Okay. And then on  
17 the last one, we have a "cordially"  
18 but no signature on it. Is that what  
19 you have?

02:53:46 20 MR. THORPE: That's what I  
21 have.

22 MR. SHELY: How do you want to  
23 mark them?

24 MR. THORPE: Together as one  
02:53:58 25 exhibit.



1 (WHEREUPON, A TWO-PAGE DOCUMENT  
2 WAS MARKED FOR IDENTIFICATION  
3 PURPOSES AS EXHIBIT NO. 7. SAME WILL  
4 BE FOUND AT THE CONCLUSION OF THIS  
02:54:18 5 DEPOSITION.)  
6

7 (By Mr. Thorpe)

8 Q Dr. Lukas, could you take a second to read  
9 over these letters?

02:54:28 10 A (Reviewing documents) Okay.

11 Q Doctor, rather than going into the  
12 details, since I think there is some incomplete  
13 aspects because we have no idea who mailed or  
14 directed this second letter, but the letters are  
02:55:38 15 involving possible of continued - possibility of  
16 continued funding for John - Dr. John Salvaggio; is  
17 that correct?

18 A It seems to be the case, yes.

19 Q Do you know who Dr. Salvaggio is?

02:55:56 20 A No, I don't recall.

21 Q These letters are dated April 28th, 1977  
22 and May 18th, 1977; is that correct?

23 A That is correct.

24 Q And the first document is from Shook,  
02:56:12 25 Hardy & Bacon; is that correct?

02:56:12 1 A Right.

2 Q And that letter essentially recommends

3 that Dr. Salvaggio's work be approved for an

4 additional \$24,000 and change for the funding of the

02:56:24 5 second and third year of his project; is that

6 correct?

7 A That seems to be the substance of the

8 letter, yes.

9 Q And the second letter is an agreement and,

02:56:42 10 in effect, an agreement by Brown & Williamson for

11 recommendation of the funds; is that correct?

12 A There is no letterhead, and there's no

13 signature. But one of the sentences in this letter

14 says, "Brown & Williamson agrees with the

02:56:58 15 recommendation for the additional funds for the

16 second and third years of this project," making

17 reference, I guess, to the - in the previous

18 paragraph to Dr. Salvaggio's project.

19 Q But, again, you do not know Dr. Salvaggio;

20 is that correct?

21 A No, I don't.

22 Q And you do not know whether he was a CTR

23 grant recipient?

24 A I don't recall. But I would imagine that

02:57:26 25 that would be - that information would be in the -

02:57:30 1 somewhere in the CTR documents.

2 Q But this document seems to suggest that  
3 attorneys from Shook, Hardy are involved in, at  
4 least with this individual, in some part of the  
02:57:46 5 granting process; is that correct?

6 A Well, it looks as though -- I don't know  
7 that that's necessarily the case.

8 Q The last -- Could you read the last - last  
9 sentence on the first document?

02:57:58 10 A It says, "We recommend approval of an  
11 additional \$24,111 in funding for the second and  
12 third years of this project."

13 Q Thank you.

14 MR. THORPE: Let's go off the  
02:58:52 15 record for a minute. I've got to get  
16 organized.

17

18 (AT THIS TIME A BRIEF RECESS WAS  
19 TAKEN, AND THE PROCEEDINGS THEREAFTER  
03:06:04 20 RESUMED AS FOLLOWS:)

21

22 (By Mr. Thorpe)

23 Q Dr. Lukas, we were talking briefly, I  
24 think, earlier about the Scientific Advisory Board  
03:06:22 25 and their role in the granting process. Do you

03:06:26 1 personally know members of the SAB?

2 A Yes, Dr. Leo Abood is someone that I know  
3 and have met with for sometime. And I believe I've  
4 made the acquaintance of Dr. Gordon Sato.

03:06:48 5 Q Do you know any of the other individuals  
6 on the SAB, either current or past?

7 A No.

8 Q Are either of the two individuals that  
9 you've named active in the research - the area of  
03:07:0210 research that you are involved?

11 A Dr. Abood was. I don't know that he's  
12 very active anymore. I believe that he is retired  
13 or is easing toward retirement. Dr. - in that  
14 Dr. Abood worked on nicotine receptors and was one  
03:07:2415 of the pioneers in work in nicotine receptors.

16 And Dr. Sato, the extent to which he was a  
17 pioneer in developing cell culture techniques  
18 basically works in an area that isn't an area of  
19 immediate scientific research for us; but cell  
03:07:4220 culture techniques are a very valuable tool for us  
21 in our studies.

22 Q In applying for a grant, do you meet with  
23 any of the SAB members?

24 A No. In fact, it's - it's considered taboo  
03:08:0025 to meet with people who are on review committees

03:08:04 1 that might be looking at your grant proposals. And  
2 certainly it's taboo to discuss with them the  
3 proceedings.

4 Q Do you know how the members of the  
03:08:16 5 Scientific Advisory Board are chosen?

6 A Oh, I don't know that with certainty. I  
7 don't know.

8 Q So, you don't know what the selection  
9 process is by the CTR for membership on the SAB?

03:08:38 10 A No. I have no information on which to  
11 base such an understanding.

12 Q Do you know what the length of tenure is  
13 for members of the SAB?

14 A No, I don't know how long the appointments  
03:08:56 15 run.

16 Q Are many of these individuals in the later  
17 stages of their academic career or retired?

18 A Some of the - some of the investigators, I  
19 would -- Some of the Scientific Advisory Board  
03:09:14 20 members, I understand are at the later stages of  
21 their career or are retired, yes.

22 Q Do you know whether they are paid for  
23 their duties as a member of the Scientific Advisory  
24 Board?

03:09:28 25 A I have no information about that.

03:09:30 1 Q Are members of the study committees of NIH  
2 paid for their participation as members of study -  
3 the study sections?

4 A My understanding is they are paid a small  
03:09:46 5 honorarium, and they are given some amounts of money  
6 toward their expenses.

7 Q And this is during the times that they  
8 meet each year?

9 A During the times that they meet, that's  
03:10:02 10 right.

11 Q Do you know whether or not the SAB members  
12 are paid for their time during their meetings?

13 A No, I do not.

14 Q How often do the SAB members meet with  
03:10:16 15 regard to CTR grant reviews?

16 A I'm not certain about that. I don't  
17 know.

18 Q Is it a yearly event?

19 A I know that there are two cycles of  
03:10:30 20 funding for grants that would begin in July or  
21 January. And, so, I imagine that there probably is  
22 at least two Scientific Advisory Board sessions when  
23 the full committee is present.

24 And I'm not certain how the preliminary  
03:10:52 25 reviews are handled, whether that's done through

03:10:54 1 meeting or through the mail. So, again, I don't  
2 know; but I imagine that there are at least two  
3 meetings annually.

4 Q Were you provided, at the time that you  
03:11:10 5 applied for grants or in preparation for this  
6 litigation, any documents detailing how SAB members  
7 are chosen, how they function, who - who chooses  
8 them for the SAB?

9 A No. That information wouldn't be relevant  
03:11:32 10 to an applicant in the grant process. And I haven't  
11 seen any such documentation in relationship to any  
12 of these cases.

13 Q Earlier, Dr. Lukas, you said that - that -  
14 and I may be mischaracterizing your testimony to a  
03:11:46 15 degree - but you said that the people who apply for  
16 grants now have a certain procedure.

17 Do you have to go back and when you're  
18 trying to renew a grant or apply for a new grant to  
19 the CTR, are you individually, as Dr. Lukas,  
03:12:04 20 required to go through the same stages you did for  
21 your original application?

22 A Once in -- My understanding is that once a  
23 grant is initially funded - for example, my current  
24 grant runs for three years, from July of '96 through  
03:12:24 25 July of '99. The non-competing renewal; that is,

03:12:32 1 the renewal - the proposals for each successive year  
2 in that three-year period, isn't a given.

3 And there is a process that we have to go  
4 through to have that grant renewed that involves  
03:12:48 5 creating an annual progress report, as well as  
6 submitting a revised budget for the upcoming - the  
7 upcoming year. And, so, those are the kinds of  
8 documents that are provided for a non-competing  
9 renewal.

03:13:10 10 A competing renewal is basically treated  
11 as a brand new application and, hence, has to go  
12 through the two-phase process that I discussed in an  
13 earlier statement, that is that the Scientific  
14 Advisory Board receives a preproposal. And then  
03:13:28 15 based on their appraisal of those preproposals, they  
16 invite a subset of those initial possible applicants  
17 to submit full proposals to the Board for  
18 consideration.

19 Q Could you tell the ladies and gentlemen of  
03:13:40 20 the Jury what you mean by a "non-competing renewal"?

21 A All right. So, grant proposals -  
22 typically a grant - in a grant proposal, an  
23 individual will ask for funding for the Council for  
24 Tobacco Research typically up to three years of  
03:13:56 25 funding.



03:13:56 1 And when that proposal is accepted, there  
2 is a bit of an understanding that if the  
3 investigator conducts himself properly; that is,  
4 makes some progress and has some substance to report  
03:14:14 5 in the annual report, that it will be basically an  
6 administrative procedure to renewal - to renew  
7 that - that grant for the second and third years of  
8 funding.

9 So, in a way, it's a not - a non-competing  
03:14:26 10 renewal. It's a renewal for each successive year in  
11 a multi-year grant. But it's non-competing because  
12 it isn't thrown in with all the new applications for  
13 funding. It isn't subjected to the two-phase  
14 process of review, partly because it already has  
03:14:44 15 gone through that stage; and now it's an  
16 administrative function.

17 The Council has agreed to fund this  
18 project for three years, and they just want to check  
19 up with you and be sure that you're making some  
03:14:54 20 progress. So, that distinguishes a non-competing  
21 renewal from a competing renewal.

22 A competing renewal would be an instance  
23 where someone has just finished their initial period  
24 of funding for a predetermined period of time. They  
03:15:08 25 wish to maybe continue work on that project. They

03:15:12 1 haven't changed the general nature of the subject.  
2 They want to maybe continue the investigations.  
3 They would submit a proposal, and it would be a  
4 competing renewal. But, in essence, it's treated  
03:15:22 5 like any new grant application again.

6 It's tabularasa with regard to how the  
7 Scientific Advisory Board looks at that proposal, as  
8 if it's fresh and brand new.

9 Q But they do look at both the new and the  
03:15:38 10 renewals different - in different stages. They  
11 don't lump them altogether and review the grants; is  
12 that correct?

13 A So - so, I think the competing - the  
14 competing renewals or the new applications are  
03:15:52 15 handled through the two-stage process. The  
16 non-competing renewals, there probably are  
17 scientific staff people who simply look at it and be  
18 sure that the investigator looks as though he or she  
19 is making progress in the project.

03:16:08 20 Q Dr. Lukas, in your review for this  
21 deposition and your prior experience, have you been  
22 provided copies of the reports of the Scientific  
23 Advisory Board meetings with regard to funding  
24 issues?

03:16:22 25 A There - there may be some documents

03:16:28 1 similar to those that you're speaking about that  
2 were provided in the Lisanti affidavit. I'm not  
3 certain, though, about the nature of the articles to  
4 which you're - or the documents to which you're  
03:16:44 5 referring.

6 Q Dr. Lukas, in Enumerated Paragraph 3 you  
7 state in your opinion report, "Many of the  
8 researchers who have received grants-in-aid from CTR  
9 have been, and are, scientists at the highest level  
03:17:14 10 in their fields. Many of these scientists have  
11 been, and are, affiliated with the most prominent  
12 medical research institutions in the United  
13 States." Is that a true and correct reading of your  
14 statement?

03:17:24 15 A Yes, it is.

16 Q And is this your opinion?

17 A Yes, it is.

18 Q What do you base your opinion on with  
19 regard to this statement?

03:17:32 20 A Again, this element in my opinion is based  
21 on my knowledge of the individuals who have been  
22 funded through grants-in-aid from the Council for  
23 Tobacco Research, their standing in the field, my  
24 reading of the literature, my interactions with them  
03:17:50 25 at scientific meetings, and contributions that they

03:17:54 1 have made to advance - advance their areas of  
2 study.

3 Q How many applicants are usually funded in  
4 a particular cycle in terms of CTR applicants and  
03:18:14 5 funded?

6 A Oh, I'm not familiar with those exact  
7 numbers. It might be possible to extract that by  
8 doing some - some algebra in the annual reports to  
9 see how many investigators were funded and what  
03:18:32 10 the - over the period of time -- I don't know that  
11 they say specifically each year how many  
12 investigators were funded. But there is an  
13 accumulative tally of numbers of scientists who have  
14 received CTR support.

03:18:46 15 Q Is the institution at which these  
16 scientists are located a criteria or a factor in  
17 whether or not something is going to be funded by  
18 the CTR?

19 A Oh, I think it - it would be at some - at  
03:19:00 20 some point in that if - if there was some scientist  
21 operating out of a - out of a garage in Beaumont as  
22 opposed to U.T. in Austin, I think that the latter  
23 individual might have a bit more credibility.

24 Q Dr. Lukas, No. 4 of your enumerated  
03:19:24 25 opinion states that "The quality of the research

03:19:24 1 supported by CTR grants-in-aids has been very high.  
2 Much of the research has been published in the most  
3 significant journals in the fields in which the  
4 studies were done. Some of this research has been  
03:19:38 5 extremely significant in the development of  
6 knowledge in particular scientific fields." Is that  
7 a correct reading of your opinion?

8 A Yes, it is.

9 Q And what do you base your opinion on with  
03:19:48 10 regard to this statement?

11 A Again, it's from my knowledge of the  
12 literature, my personal interactions with some of  
13 the CTR grantees, and basically my - in general, my  
14 scientific interactions with people who have been  
03:20:16 15 grantees and judgments as to the quality of the  
16 research that they published, including elements of  
17 their research programs that were funded through the  
18 CTR.

19 Q The research that's funded by the CTR is  
03:20:32 20 funded based on their policy of funding studies that  
21 are related to smoking and health?

22 A Well, I think that's - that's the policy  
23 that the Council desires to adhere to, yes.

24 Q Do they, in fact, adhere to that policy?

03:20:56 25 A To my understanding, they do.

03:21:56 1 Q Dr. Lukas, after your Counsel - after  
2 Counsel for CTR has a chance to look over this  
3 document, I would like to have you look at a  
4 document that's entitled "Confidential Report,  
03:22:12 5 Scientific Advisory Board Meeting, September 19, 20,  
6 21, 1984, New York, New York."

7 MR. SHELY: Counsel, would you  
8 like this stapled as one?

9 MR. THORPE: Yes, please, as  
03:23:0210 one.

11  
12 (WHEREUPON, A 12-PAGE DOCUMENT  
13 WAS MARKED FOR IDENTIFICATION  
14 PURPOSES AS EXHIBIT NO. 8. SAME WILL  
15 BE FOUND AT THE CONCLUSION OF THIS  
16 DEPOSITION.)  
17

18 MR. SHELY: For the record, what  
19 is the exhibit number on that one?

03:23:3020 THE REPORTER: 8.

21  
22 (By Mr. Thorpe)

23 Q Dr. Lukas, does this appear to be the  
24 report from the SAB board meeting in September,  
03:25:3225 1984?

03:25:34 1 A It seems to be -- That seems to be the  
2 case, yes.

3 Q And in your review of this document, did  
4 you see your name listed in this document?

03:25:50 5 A No. Is it here?

6 Q If you'll turn to the page stamped 0068 -  
7 000680.

8 A 680, oh, okay.

9 Q And listed in the middle is a line titled  
03:26:1410 "1693, Ronald J. Lukas, Ph.D., \$30,360"?

11 A Yes.

12 Q Could you turn to the page directly  
13 preceding that page, 679?

14 A Yes.

03:26:2215 Q And it states that this is a new or a  
16 continuing application; and it says, "were rated for  
17 approval"?

18 A Uh-huh.

19 Q Would you also turn to the last page,  
03:26:3620 685?

21 A 685, okay.

22 Q And it states: Subsequent to this meeting  
23 of the new and continuing application of - the  
24 scientific directors determined the following should  
03:26:4825 be funded in the specific amounts.

03:26:50 1 A Uh-huh.

2 Q It states that the scientific director

3 determined ---

4 A Yes.

03:26:54 5 Q --- that you should be funded; is that

6 correct?

7 A Uh-huh.

8 Q And, in fact, you were funded for

9 \$30,360?

03:27:00 10 A So, it would seem to confirm that in a way

11 by looking at my C.V. where I list the amount of

12 total direct costs over the entire duration of the

13 project.

14 Q And this was -- But this was just for one

03:27:14 15 year?

16 A That's probably for one year, yes.

17 Q And was this the first year that you were

18 funded?

19 A It may well have been. Let's see. So, if

03:27:26 20 it's the Board meeting '84, my grant began in

21 January of 1985.

22 Q After your Counsel, again, looks over a

23 document, I would like you to also look the document

24 over. The document that I've just handed to Counsel

03:28:00 25 is entitled "Action Taken by the Scientific Advisory



03:28:04 1 Board During the September 19th - 21st, 1984  
2 Meeting."

3 MR. SHELY: The only question I  
4 have, Counsel, is there's a notation  
03:28:26 5 here regarding - it says at the  
6 bottom of the document, "Produced in  
7 Butler V. Philip Morris, et al.  
8 Dissemination is prohibited by  
9 protective order entered by the  
03:28:36 10 Court."

11 And I'll take your word on it  
12 that that dissemination is  
13 appropriate. I just don't know.

14 MR. THORPE: We're not going to  
03:28:46 15 mark this as an exhibit.

16 MR. SHELY: Okay.

17 MR. OTT: It's still  
18 disseminating.

19  
20 (By Mr. Thorpe)

21 Q I would like you to take a look at this.

22 MR. THORPE: And it has been -  
23 it has been produced.

24 MR. SHELY: It has been what?

03:28:58 25 MR. THORPE: It has been

03:29:00 1

produced in this case.

2

MR. SHELY: I'll take your word

3

for it. I don't know.

4

5

(By Mr. Thorpe)

6

Q Dr. Lukas, have you ever seen this document either produced or during your period that you were applying for grants?

8

9

A No, I have not.

03:30:00 10

11

Q Dr. Lukas, earlier you testified that you had read over the Waxman Committee Report regarding Dr. Glenn's testimony; is that correct?

12

13

A Yes, I did review that.

14

03:30:16 15

16

Q Are you familiar with what Dr. Glenn stated with regard to the -- First of all, would you identify who Dr. Glenn is?

17

18

19

03:30:36 20

21

22

23

24

A Dr. Glenn was, to my recollection, scientific director of the Council for Tobacco Research for a period of time. And to my recollection, he is also - continues to serve in an administrative capacity. I believe, there are several titles, maybe President and CEO of the Council for Tobacco Research currently.

03:30:52 25

Q And, so, he is still actively a participant in the CTR?

03:30:54 1 A That's my understanding, yes.

2 Q Are you aware that he testified that of  
3 the \$100 million that has been spent through CTR  
4 fundings, only 10 percent were spent on smoking and  
03:31:08 5 health-related research?

6 A I don't recall such a statement. That -  
7 that's - that's mentioned in his affidavit, I  
8 think.

9 Q We're not talking about the affidavit.  
03:31:22 10 We're talking about the actual Waxman report.

11 A Uh-huh.

12 Q And you don't recall him making that  
13 statement?

14 A I don't recall that, no. And, again, the  
03:31:34 15 statement was?

16 Q That of the \$100 million that have been  
17 spent by - at that time, by the CTR, that only  
18 10 percent had been spent on smoking and health  
19 research.

03:31:46 20 A Right.

21 Q Does that seem to conform with the policy  
22 that had been enumerated in - one of the documents  
23 you reviewed on the statement of policy of the CTR?

24 A It's difficult for me to assess that  
03:32:06 25 without seeing that phrase in its entire - in the

03:32:12 1 entirety of its context.

2 Q Dr. Lukas, in reviewing Dr. Oparil's  
3 deposition, did you read or did you review the  
4 portion of the deposition that was discussing a  
03:32:38 5 paper that appeared in the American Journal of  
6 Public Health in 1991?

7 A I haven't committed such a recollection to  
8 memory.

9 Q I'll let your Counsel take a look at this  
03:32:54 10 article. And then I think we'll go off the record  
11 for a minute so you'll have an opportunity to review  
12 the article that I will have marked. And it is an  
13 article from the American Journal of Public Health,  
14 July, 1981, Volume 81, No. 7, Pages ---

03:33:16 15 MR. OTT: 1991.

16 Q 1991 - I'm sorry - Pages 839 through 842.

17  
18 (AT THIS TIME A BRIEF RECESS WAS  
19 TAKEN, AND THE PROCEEDINGS THEREAFTER  
20 RESUMED AS FOLLOWS:)

21  
22 (WHEREUPON, A FOUR-PAGE DOCUMENT  
23 WAS MARKED FOR IDENTIFICATION  
24 PURPOSES AS EXHIBIT NO. 9. SAME WILL  
25 BE FOUND AT THE CONCLUSION OF THIS

## DEPOSITION.)

(By Mr. Thorpe)

Q Doctor, the document that we've just had marked as an exhibit is a paper that was published in the American Journal of Public Health entitled "Tobacco Industry Scientific Advisors: Serving Society or Selling Cigarettes?" Is that the title of this article?

A That's correct.

Q And in this article, it -- This article was based on an interview or a questionnaire that was sent to members of the Scientific Advisory Board; is that correct?

A So it seems. The author does make reference to such a survey.

Q And what was the - what was the results that Dr. Warner received with regard to his question of whether or not the members of the Scientific Advisory Board believe that cigarette smoking caused cancer?

A Well, it - his - his query was: "Do you believe that cigarette smoking causes lung cancer? In answering this question, interpret causality in its lay public meaning. You should respond in the

03:44:12 1 affirmative if you believe that smoking, or any of  
2 the components of cigarette smoke, either initiates  
3 or promotes lung cancer."

4 So, that's the question that he asked.

03:44:26 5 And - and, let's see. To quote from the Abstract,  
6 "Only four of the 13 Board members responded, all  
7 affirmatively" to that question. "Two others  
8 expressed their judgment that smoking causes lung  
9 cancer in their professional publications. Thus,  
03:44:46 10 over one half of the Board members, and the Board as  
11 a whole, have not gone on record as rejecting the  
12 industry's 'party line.'" "Party line" is in  
13 quotes.

14 Q Do you know whether or not the members of  
03:45:02 15 the SAB have ever taken a position with regard to  
16 whether or not cigarette smoking causes lung  
17 cancer?

18 A I'm not aware of any formal statement or  
19 position that they have taken in the aggregate.

03:45:28 20 Q Thank you. Dr. Lukas, we've talked on  
21 several occasions about publication of manuscripts  
22 and papers emanating from research processes. And I  
23 think we've mentioned peer review a couple of  
24 times. Could you describe to us what peer review  
03:45:52 25 means with regard to publication of manuscripts?

03:45:58 1 A Peer review means that when a manuscript  
2 is submitted to a journal, the editors of that  
3 journal, and whether they be the chief editor or  
4 deputy editors, are charged with identifying, on the  
03:46:12 5 editorial board or out in the scientific community,  
6 individuals who have the qualifications to review  
7 that manuscript and its contents and render judgment  
8 as to whether they - the particular report is worthy  
9 of publication or not.

03:46:32 10 So, the peer review process is a process  
11 that implies that peers in the field, scientists  
12 with adequate expertise, are judging the - the  
13 manuscripts submitted for publication by their  
14 colleagues and sometimes competitors in the field.

03:46:58 15 Q And these documents are - are sent to  
16 these reviewers blind; is that correct, so that they  
17 won't know who - the author or what institution this  
18 person comes from?

19 A No, that's not correct. When the  
03:47:10 20 manuscript is submitted -- In fact, it's the other  
21 way around. When the manuscript is submitted, it  
22 comes with the byline and the institutional  
23 affiliation as part of that document. So, the  
24 evaluation -- So, the reviews aren't blinded as to  
03:47:28 25 who the authors are of the article.

03:47:30 1 On the contrary, the authors are blinded  
2 as to who the actual people are who truly read the  
3 manuscript and rendered an opinion about that. The  
4 authors and the reviews know who the editor is who  
03:47:52 5 is the middle person and that's handling the entire  
6 administrative process.

7 And maybe some authors who submit  
8 manuscripts can make educated guesses about who on  
9 the editorial board might have been a person to look  
03:48:06 10 at this or even who out in the general field might  
11 have reviewed their proposal based on any  
12 idiosyncracies of style, et cetera.

13 But it is a peer-review system that seeks  
14 to maintain anonymity for referees and reviewers of  
03:48:22 15 grant proposals or manuscripts.

16 Q And the person who then submits it, the  
17 person who reviews it, reviews it as per the authors  
18 of that article and not who might have rewritten or  
19 possibly changed the language of the manuscript  
03:48:42 20 before it was submitted; is that correct?

21 A So, yes, the -- I see no reason why  
22 someone who is reviewing a manuscript wouldn't think  
23 that there might have been a hand by someone else  
24 other than the authors listed in the byline of the  
03:49:02 25 manuscript.



03:49:02 1 Q So, if a lawyer was involved in possibly  
2 rewriting or manipulating the document, that  
3 reviewer would have no knowledge of that; is that  
4 correct?

03:49:12 5 A The only opportunity to have such  
6 knowledge is if the attorney was listed in the  
7 byline as a coauthor. And perhaps if acknowledgment  
8 was given, that there was maybe some sort of  
9 contractual arrangement that led to the publication  
03:49:28 10 of those results, it might be possible for a referee  
11 to infer that there might have been some other  
12 people involved. But they weren't the principals  
13 involved in execution of those experiments.

14 Q When a - when a manuscript is reviewed for  
03:49:46 15 publication, does the reviewer look at the  
16 authenticity of the data that's presented?

17 A Oh, certainly. That's a critical element  
18 in reviewing a paper for publication.

19 Q How do they do that? Are they provided  
03:49:58 20 the broad data to analyze themselves, or do they do  
21 it based on what's presented in the - in the  
22 manuscript?

23 A Well, that varies from one case to  
24 another. The raw data isn't typically provided to  
03:50:14 25 the referees. The referees look at figures, tables

03:50:22 1 that summarize the essential data. Usually -  
2 usually, you know, in my field, for example, we'll  
3 run a particular experiment several times. And we  
4 will compute the - you know, for the purposes of  
03:50:38 5 plotting things, we'll compute averages and standard  
6 deviations or averages and standard errors of the  
7 mean to present in our - as our data that's plotted  
8 or presented in a table in some way.

9 But the raw primary data is used to do -  
03:50:54 10 to produce those figures or tables. But it's not  
11 typically provided to - to referees of the  
12 manuscript.

13 Q And, so, the referee would not have any  
14 idea whether or not the data that was provided to  
03:51:06 15 him was actually fraudulent?

16 A That's correct. And it - that's why it's  
17 important for diligence with regard to fraud to be  
18 conducted at the level of the institution and the  
19 laboratory, the people who are most intimately  
03:51:26 20 associated with the research, who have the access,  
21 and be observant of the day-to-day activities of the  
22 individuals involved.

23 But the ultimate responsibility for that  
24 usually rests with the senior investigator in the  
03:51:44 25 laboratory, the laboratory's director.

03:51:44 1 Q Sometimes that particular fail safe  
2 actually fails; isn't that correct?

3 A That does happen, yes.

4 Q And that cost a Nobel Laureate the  
03:51:58 5 presidency of Rockefeller University, didn't it?

6 A Well, I'm not certain to whom you're  
7 referring. But sometimes there are ramifications if  
8 fraud has been perpetrated. And it's been -- That's  
9 a -- Again, it doesn't happen frequently. It has  
03:52:14 10 become more prominent in public awareness recently,  
11 though.

12 Q And, in fact, scientific fraud is often  
13 not caught; is that correct, unless the project is  
14 repeated or followed up by someone?

03:52:30 15 A I have no basis to estimate how often  
16 fraud is not caught. But in these days when so few  
17 investigators are covering so many different fields,  
18 this is a very critical time to ensure that because  
19 I think that - I know there are many things that we  
03:52:50 20 do in my laboratory, 10, 20 - 20 years ago, there  
21 were other people doing probably exactly the same  
22 things. But now things are so broad, we better get  
23 it right because we'll probably be the only people  
24 who will be doing those experiments.

03:53:04 25 Q Do you believe that the peer-review

03:53:06 1 process ensures that only, quote, "good science"  
2 gets published?

3 A As - as in any process that involves human  
4 behavior, and this process involves human behavior  
03:53:20 5 in many different ways, it is not an infallible  
6 process. But it is the - it is the norm and is  
7 thought, if you will, the state of the art, across -  
8 across the world as to how grants and papers are  
9 reviewed. It doesn't mean that it's a perfect  
03:53:38 10 system.

11 Q Even though most authors, as we've  
12 discussed, reference the funding that support this  
13 particular project, would a reviewer, a peer  
14 reviewer or even a journal editor know whether or  
03:54:04 15 not a publication that was supported in part by the  
16 CTR, whether that support was through grant-in-aid  
17 or was it through a special project? Would they  
18 have any - any way of determining that, other than  
19 if it was specifically enumerated?

03:54:20 20 A Well, I think it's the case that for  
21 the -- My understanding is that for the special  
22 projects, the Council for Tobacco Research asked all  
23 of the grantees in the special projects program to  
24 acknowledge not the Council for Tobacco Research but  
03:54:36 25 the Council for Tobacco Research special program -

03:54:38 1 special projects program.

2 So, it is -- I don't know that it's  
3 required. But it certainly is the standard that  
4 people acknowledge sources of their support. And,  
03:54:50 5 you know, to my mind, they should do so gratefully.

6 Q Would most peer reviewers or -- Strike  
7 that.

8 Would most journal editors or peer  
9 reviewers know the difference between a grant-in-aid  
03:55:02 10 and special projects funded by the CTR?

11 A I don't know that without -- Just by  
12 seeing that kind of acknowledgment, I don't know  
13 that they would realize any implications of that.  
14 But it certainly would be at their discretion to  
03:55:22 15 investigate, if they wanted, to determine what the  
16 difference was between a special project and a  
17 regular grant-in-aid.

18 In my own experience, as it turns out, I  
19 probably did learn of the special projects many  
03:55:34 20 years ago, when I saw such a notation in an  
21 acknowledgment to an article that I read.

22 At the time it struck me as interesting  
23 that that was their - suggesting there might be a  
24 special project. And I probably made a mental note  
03:55:48 25 to give a call and find out what special projects

03:55:50 1 are. But I ---

2 Q Did you do that?

3 A But I - but I never did. So, that was the  
4 first flag to me that there might exist another

03:55:58 5 program at the Council for Tobacco Research; but I  
6 never investigated it further. And it wasn't in my  
7 random access memory until I reviewed some of the  
8 documents pertinent to this case.

9 Q Do you believe that most journal editors  
03:56:16 10 would take the time or the effort to go find out the  
11 difference?

12 A I don't know if they would have any reason  
13 to. And without a reason, I doubt they would spend  
14 their time doing that.

03:56:30 15 Q Dr. Lukas, No. 5, Enumerated No. 5 of  
16 your - in your report states as follows: "The  
17 process by which the SAB disburses CTR funds,"  
18 parentheses, "(whether by grant or contract)," end  
19 parentheses, "and monitors research is similar to  
03:56:54 20 the manner in which such tasks are done by major  
21 governmental funding agencies, such as the NI" -  
22 "National Institutes of Health," period.

23 "Researchers supported by such CTR grants  
24 or contracts have the same independence accorded  
03:57:08 25 researchers sponsored by the governmental agencies

03:57:12 1 or by voluntary health organizations or  
2 foundations. Indeed, a substantial number of  
3 CTR-funded researchers have also received support  
4 from these other institutions."

03:57:26 5 Is that a correct reading?

6 A Yes, it is.

7 Q And is that still your opinion?

8 A Yes, it is.

9 Q What do you base your opinion on in  
03:57:38 10 formulating - or what do you base your opinion in  
11 formulating the statement?

12 A My opinion is based on my understanding of  
13 the scientific review process at the Council for  
14 Tobacco Research and at other Government-funding  
03:57:54 15 agencies and at other foundations whose benefactors  
16 may be contributing because of their interest in  
17 certain diseases, like American Lung Association or  
18 American Heart Association.

19 My opinion is also based on a - my  
03:58:14 20 knowledge of the scientific literature and of people  
21 who have had grant support from different  
22 organizations including the National Institutes of  
23 Health and the Council for Tobacco Research and by  
24 reading, in many cases in my field, work from  
03:58:30 25 scientists who are simultaneously or sequentially at

03:58:36 1 some time funded by both the Council for Tobacco  
2 Research and other agencies, such as the National  
3 Institutes of Health.

4 Q With regard to independence of CTR  
03:59:06 5 grantees or contractees, you - you earlier stated  
6 that you were familiar with Dr. Freddy Homburger; is  
7 that correct?

8 A I have read about a Dr. Homburger. I'm  
9 not familiar with him. I don't know him, and I  
03:59:24 10 haven't looked in great detail at his research. But  
11 I'm aware of some of the issues relating to  
12 Dr. Homburger's research and his relationship to the  
13 Council for Tobacco Research.

14 Q And his studies -- Are you aware that his  
03:59:38 15 studies were - involved inhalation studies involving  
16 Syrian hamsters; is that correct?

17 A I believe that's my recollection, yes.

18 Q And are you also aware that the research  
19 that he conducted showed that - the inhalation study  
04:00:00 20 showed that Syrian hamsters would develop laryngeal  
21 carcinomas at a fairly high rate from the inhalation  
22 of cigarette smoke?

23 A I know that he investigated the effects of  
24 cigarette smoke on cancer formation in hamsters. I  
04:00:18 25 don't know that I would agree with your statement,



04:00:22 1           though, that it induced cancer at a high rate.

2           Q           Do you know the percentage of the animals  
3           that developed laryngeal cancer?

4           A           I don't recall specifically, no.

04:00:38 5           Q           Did you read in his paper that was  
6           published in the Journal of the NCI?

7           A           I may have -- I don't know that I've had a  
8           chance to look at that.

9           Q           So, at this point ---

04:00:50 10          A           But my recollection was that the rates of  
11          cancer were below - were below 20 percent or so.  
12          I'm not certain, but I think that's - that puts an  
13          upper limit on ---

14          Q           Do normal animals - Syrian hamsters  
04:01:14 15          develop laryngeal cancer at fairly high rates?

16          A           It's not in an area of my expertise. So,  
17          I'm not certain what would be considered high or low  
18          or normal levels of development of cancer in those  
19          animals.

04:01:28 20          Q           Are you also aware that the research that  
21          he did with regard to these studies, that the CTR  
22          tried to suppress the publication of those results?

23          A           I may have read something where that -  
24          however, it's been alleged that the CTR tried to

04:01:52 25          suppress the publication of those results. But I

04:01:56 1 don't -- I haven't seen any evidence that would  
2 suggest that that, in fact, was the case.

3 Q Counsel for CTR is now looking at a letter  
4 that was published in Science on September of 1996  
04:02:10 5 from Dr. Homburger. I would like you to look at  
6 that after they're done reviewing it.

7 MR. SHELY: Do you want to mark  
8 that one?

9 MR. THORPE: Yes, please.

10  
11 (WHEREUPON, A ONE-PAGE DOCUMENT  
12 WAS MARKED FOR IDENTIFICATION  
13 PURPOSES AS EXHIBIT NO. 10. SAME  
14 WILL BE FOUND AT THE CONCLUSION OF  
04:03:0015 THIS DEPOSITION.)

16  
17 A (Reviewing document) Okay.

18  
19 (By Mr. Thorpe)

04:04:2020 Q Dr. Lukas, this particular letter was  
21 published, as I said, in a journal called Science.  
22 Is Science a well-respected journal?

23 A Yes, it is.

24 Q And, in fact, it's one of the most  
04:04:3625 respected journals in scientific literature; isn't

04:04:38 1 that correct?

2 A Yes, it is. But this seems to be a letter  
3 to the editor and not an article - a research  
4 article published in Science.

04:04:48 5 Q But the letters are also screened; is that  
6 your understanding?

7 A I'm not certain about that.

8 Q And this letter was a letter that was  
9 generated by Dr. Homburger in response to a  
04:05:0610 statement that had been published also as a letter  
11 in Science "that 'CTR has always encouraged  
12 investigators to publish results of research,  
13 whether favorable or unfavorable to the tobacco  
14 industry' contradicts my personal experience."

04:05:2415 Isn't that what he states?

16 A That's correct.

17 Q And, in fact, he goes on to say that - and  
18 I'm paraphrasing - but Dr. Robert Hockett, who we  
19 have identified earlier, I believe, and a Mr. Jacob,  
04:05:3820 who is a lawyer, threatened that if he published his  
21 results, that he would not get any funding from the  
22 CTR after that; is that correct?

23 A That, yes, substantively is correct.

24 Q And do you know whether or not  
04:05:5425 Dr. Homburger's funds were, indeed, withdrawn after

04:05:58 1 his publication of this particular article?

2 A I don't recall with certainty. But I am  
3 familiar with some of the interactions relating to  
4 this issue.

04:06:12 5 Q And, in fact, this letter states that he  
6 did not receive any more money from the CTR after  
7 that publication; is that correct?

8 A That's correct.

9 Q In the documents that you were provided in  
04:06:40 10 preparation for this deposition, were you provided a  
11 document that I think has been called "The Blue  
12 Book, Chronic Exposure of Mice to Cigarette Smoke"?

13 A I believe that is the -- Yes, I believe  
14 I've seen that document.

04:07:12 15 Q This is a copy of this document,  
16 obviously, in copy form. I would just like you to  
17 take a quick look at it and identify it as the  
18 document that we're - we're referencing  
19 (Tendering).

04:07:34 20 A (Reviewing document) Yes.

21 Q And was this document generated -  
22 purportedly generated as a result of studies  
23 that were conducted at Microbiologic Associates  
24 in Washington, D.C. by Dr. Carol Henry and  
25 Dr. Richard Kouri?

04:08:14 1 A Microbiological Associates is in Bethesda,  
2 Maryland. But they are - Drs. Henry and Kouri, of  
3 Microbiological Associates in Bethesda, are listed  
4 as project directors on this report.

04:08:32 5 Q This work -- Is it your understanding this  
6 work was done under contract?

7 A That's my understanding, yes.

8 Q Is it also your understanding or do you  
9 know whether or not Drs. Carol - Carol J. Henry or  
04:08:50 10 Richard E. Kouri were consulted in developing or  
11 writing this - this final report?

12 A My understanding is that they - that they  
13 were involved in preparing the research results.  
14 And they conducted - were involved in the conduct of  
04:09:12 15 the experiments that are described in the report.

16 Q Were these -- Were they consulted in the  
17 preparation of this report?

18 A There seems to be some controversy about  
19 that, based on the documents that I have reviewed.

04:09:30 20 Q Did you read in the affidavits that were -  
21 that were attached to Dr. Oparil's deposition from  
22 Dr. Carol Henry and Dr. Kouri?

23 A I believe I've seen -- Yes, I have seen  
24 those. I have seen some documents like that. I'm  
04:09:48 25 not certain if they're the ones you're referring

04:09:50 1 to.

2 Q I have just presented Counsel with a  
3 mimeograph copy of the affidavits of both Drs. Henry  
4 and Dr. Kouri. And I would like you to review  
04:10:04 5 those.

6 MR. THORPE: So, we can go ahead  
7 and go off the record at this point.

8  
9 (WHEREUPON, DOCUMENTS WERE  
10 MARKED FOR IDENTIFICATION PURPOSES AS  
11 EXHIBITS 11 AND 12. SAME WILL BE  
12 FOUND AT THE CONCLUSION OF THIS  
13 DEPOSITION.)

14  
15 (AT THIS TIME A BRIEF RECESS WAS  
16 TAKEN, AND THE PROCEEDINGS THEREAFTER  
17 RESUMED AS FOLLOWS:)

18  
19 (By Mr. Thorpe)

04:26:0620 Q Dr. Lukas, you've had an opportunity to  
21 look over the affidavits of Dr. Henry and Dr. Kouri;  
22 is that correct?

23 A That's correct.

24 Q And these have been marked as an exhibit  
04:26:2425 to this deposition, correct?

04:26:26 1 A Yes.

2 Q Based on your review of the affidavit of  
3 Dr. Henry, was Dr. Henry one of the primary  
4 researchers employed by Microbiologic Associates to  
04:26:42 5 do an inhalation study on mice under contract for  
6 the CTR?

7 A That is the representation in this  
8 document, yes.

9 Q And is there any basis for you to believe  
04:27:00 10 otherwise?

11 A No.

12 Q And this study was conducted for a number  
13 of years; is that correct - over a number of years?

14 A So it seems from this document, yes.

04:27:16 15 Q Do you know who a Dr. Kreisher was?

16 A No, I do not, other than based on the  
17 information that's provided in this - in this  
18 document.

19 Q He apparently was someone from the CTR; is  
20 that correct?

21 A That seems to be the case, yes.

22 Q And the CTR sponsored this work, and the  
23 work was involving the development of an animal  
24 model for lung cancer; is that correct?

04:27:44 25 A That seems to be one of the goals of the

04:27:48 1 research.

2 Q Does Dr. Kouri state on Paragraph No. 18  
3 that CTR informed Microbiologic Associates that they  
4 would no longer sponsor the long-term inhalation  
04:28:04 5 studies?

6 A I believe Item 18 in Dr. Henry's affidavit  
7 states that, yes, not Dr. Kouri's.

8 Q That's correct. But we're right now just  
9 limiting our discussion to Dr. Henry.

04:28:22 10 MR. SHELY: I'm confused. Is  
11 that paragraph in Dr. Henry's?

12 MR. THORPE: Dr. Henry, yes.

13 MR. SHELY: That's what you  
14 were ---

04:28:30 15 THE WITNESS: Item 18 -- Right,  
16 Item 18 in Dr. - Dr. Henry's.

17

18 (By Mr. Thorpe)

19 Q Item No. 21 states that a final report  
04:28:42 20 was drafted for all CTR contract work at their  
21 institute; is that correct?

22 A Yes, that's right.

23 Q And that Dr. Henry and Dr. Kouri were the  
24 primary authors of the final report submitted to the  
04:28:58 25 MAI?



04:29:00 1 A That is the statement in - the substance  
2 of the statement, Item No. 22.

3 Q And this final report was not drafted and  
4 submitted until February of 1984?

04:29:12 5 A That is the implication of Item No. 23,  
6 yes.

7 Q What is the implication of Item No. 24  
8 with regard to the drafting of the final report?

9 A Well, Item 24 says, "During these six  
04:29:30 10 months, our work on the final report was overseen on  
11 a regular basis by Dr. William Gardner and Attorney  
12 Tim Finnegan, a lawyer for CTR."

13 Q And Item No. 25?

14 A Item 25 states, "The involvement of CTR  
04:29:44 15 and its counsel was unusual and intrusive in writing  
16 a final report of scientific research requested and  
17 approved by the sponsor."

18 Q And Item No. 26?

19 A It reads, Attorney "Finnegan advised  
04:29:56 20 Dr. Kouri and me that the final report was not to  
21 contain our interpretations or discussion of the  
22 results or how the results might relate to humans,"  
23 period. "Mr. Finnegan appeared to be the control  
24 point in approving drafts."

04:30:14 25 Q It appears from Dr. Henry's statements in

04:30:18 1 these paragraphs that the attorney or an attorney  
2 for CTR played a significant role in drafting of the  
3 final report of their results; is that correct?

4 A That's -- Yes, that is the suggestion  
04:30:34 5 here.

6 Q Items 28 and 30, to paraphrase, say that  
7 they found that 19 out of 978 mice developed cancer  
8 as opposed to their controlled 7 out of 651. Is  
9 that what she states?

04:31:02 10 A Something to that effect, yes.

11 Q And would you read us her conclusions  
12 enumerated in Item No. 29?

13 A In No. 29 she states, "It was and is my  
14 conclusion that the results of this inhalation  
04:31:16 15 experiment was strongly supportive of the biological  
16 effects of cigarette smoke and the hypothesis that  
17 cigarette smoking causes lung cancer although the  
18 results were not conclusive."

19 Q And Item 30?

04:31:28 20 A "It is my opinion that termination of the  
21 CTR contract, initiated to improve understanding of  
22 the biological effects of cigarette smoke and its  
23 relationship to lung cancer, was premature and  
24 scientifically ill-advised."

04:31:46 25 Q The document that you looked at earlier

04:31:50 1 entitled, "Chronic Exposure of Mice to Cigarette  
2 Smoke" ---

3 A Uh-huh.

4 Q Dr. Henry in her affidavit states that the  
04:32:00 5 CTR published this book entitled - with the same  
6 title. Is that your understanding?

7 A That is my understanding, yes.

8 Q And ---

9 MR. SHELY: I'm sorry. Can I  
04:32:10 10 ask for one clarification? I just  
11 want to seek clarification. Was  
12 that -- Was the question his  
13 understanding based on his knowledge  
14 or his understanding based on what  
04:32:16 15 he's read in the affidavit?

16 MR. THORPE: Based on his  
17 knowledge and his review in  
18 preparation for this deposition.

19 MR. SHELY: Okay. That may be a  
04:32:24 20 different question, but I don't  
21 know. I would like the witness to  
22 have a chance to answer that.

23  
24 (By Mr. Thorpe)

04:32:30 25 Q Is it your understanding the document that

04:32:32 1 you - that I presented to you today, you have also  
2 seen that document prior to today; isn't that  
3 correct?

4 A Yes, that's right.

04:32:38 5 Q And you are of the understanding that that  
6 document was published by CTR; is that correct?

7 A That is my understanding, yes.

8 Q And with regard to the date, are you  
9 familiar with the date that it was published?

04:32:50 10 A There probably is documentation of that  
11 date. And, yes, the final report is dated  
12 February 28th, 1984.

13 Q And I think I asked you earlier; but in  
14 Item 33, Dr. Henry states that she and her  
04:33:18 15 "colleagues at MAI had no knowledge of this book  
16 and did not receive a copy of it until I requested  
17 it."

18 Is that an unusual practice for a book to  
19 be published, containing almost exclusively the  
04:33:32 20 results of studies that were done by independent  
21 investigators, not to be consulted, in the  
22 publication of a book that has their results?

23 A I'm not -- I believe that this study was  
24 conducted under contract. And I'm not sure what the  
04:33:52 25 stipulations were in the contract about who owned

04:33:54 1 the rights to the research and who had authority to  
2 publish - publish the proceeding. So, without that  
3 knowledge, I can't form an opinion about - about  
4 that.

04:34:08 5 Q Have you ever had any of your scientific  
6 results published without consulting you, other than  
7 just simply quotations or references to your  
8 previous publications?

9 A No. And I - and I haven't - but I haven't  
04:34:24 10 conducted any research under contract.

11 Q Would you -- Would you allow raw data  
12 that - or data that you have generated to be  
13 published with reference to you without being able  
14 to review that publication?

04:34:40 15 A That is not the common practice. And, so,  
16 no, if I had an opportunity to stop publication of  
17 that material without my authorization, I certainly  
18 would try to.

19 Q Is it common practice for someone who is  
04:35:00 20 not involved in a project and has not been involved  
21 in a project at all to interpret the data and  
22 publish those - that data?

23 A Again, that practice might be impacted by  
24 contractual stipulations. But it would be highly  
04:35:20 25 unusual for someone to be in position who hadn't

04:35:24 1 engaged in any of the research to have that data and  
2 to have the capability of publishing it.

3 Q Item 39 states that Drs. Henry and Kouri  
4 actually published a research report of their  
04:35:46 5 findings of the study; is that correct?

6 A That's the substance of that entry, yes.

7 Q And that article was published in the  
8 Journal of the National Cancer Institute; is that  
9 correct?

04:36:04 10 A That's correct.

11 MR. THORPE: I would like this  
12 marked. This is the article.

13

14 (By Mr. Thorpe)

04:36:42 15 Q Dr. Lukas, while Counsel is looking over  
16 this article, is the J.N.C.I. a peer-reviewed  
17 journal?

18 A My understanding is that, yes, it is.

19 Q And is, in fact - isn't it a fact that the  
04:37:02 20 J.N.C.I. is a well-respected journal in cancer  
21 literature?

22 A Yes, my understanding is that it is.

23 MR. SHELBY: Do you want it  
24 marked?

04:37:08 25 MR. THORPE: (Nodding

1 affirmatively)

2  
3 (WHEREUPON, A TEN-PAGE DOCUMENT  
4 WAS MARKED FOR IDENTIFICATION  
5 PURPOSES AS EXHIBIT NO. 13. SAME  
6 WILL BE FOUND AT THE CONCLUSION OF  
7 THIS DEPOSITION.)  
8

9 (By Mr. Thorpe)

04:37:3610 Q Dr. Lukas, I'm not going to ask you about  
11 the contents or the findings of the study. However,  
12 Dr. Henry states in Item No. 40 that the CTR had a  
13 right to review and edit the article. And that's  
14 correct ---

04:37:5815 A That's ---

16 Q --- according to her affidavit?

17 A That is what her statement is in Item 40,  
18 yes.

19 Q In the next item, she also states that  
04:38:1220 this article was based on their final report and the  
21 CTR insisted that a disclaimer be attached to this  
22 article; is that - or this research report; is that  
23 correct?

24 A Yes.

04:38:2425 Q And I think that's listed as a - in the

04:38:30 1 Footnote No. 3?

2 A That is correct, in Exhibit 13.

3 Q You stated earlier that you publish  
4 articles and acknowledge CTR funding; is that  
5 correct?

6 A That is correct.

7 Q Does your acknowledgment of CTR funding  
8 also include a disclaimer that the interpretations  
9 and opinions of those of the author are not  
04:38:56 10 necessarily those of the Council for Tobacco  
11 Research?

12 A In articles published in the past that  
13 site the Council for Tobacco Research as a source  
14 for funding, I have no such disclaimer. But I  
04:39:10 15 recently have been putting a similar kind of  
16 disclaimer in applying not only to funding through  
17 the Council for Tobacco Research but through other  
18 funding organizations.

19 And, in fact, that was a request of the  
04:39:28 20 Arizona Disease Control Research Commission, who is  
21 funding some of our research now, that we put a  
22 disclaimer that has quite similar language to the  
23 one that appears in Exhibit 13.

24 Q That was not common practice in 1986; is  
25 that correct?



04:39:42 1 A Not to my knowledge, no.

2 Q And do you do that now for papers that you

3 acknowledge CTR's participation?

4 A I do now because I put the disclaimer in

04:39:56 5 making reference to "all of the aforementioned

6 awarding agencies," is the way it should be worded.

7 Q Have you ever been asked by CTR to include

8 that disclaimer in the articles that you submit for

9 publication?

04:40:12 10 A No, I have not.

11 Q Dr. Lukas, could you read the last item in

12 Dr. Henry's affidavit?

13 A Item No. 44 states that "I understand that

14 the results of the initial inhalation experiments

04:40:40 15 were used by the tobacco industry experts to support

16 a claim that cigarette smoke has not been shown to

17 be a cause of lung cancer," period. "I strongly

18 disagree with this representation," period.

19 Q The affidavit that was given to you by

04:41:04 20 Dr. Kouri, essentially does this affidavit have

21 similar claims in it?

22 A Yes, I would say that it is substantive

23 of the - similar to the claims made by

24 Dr. Carol Henry.

04:41:26 25 Q Dr. Lukas, based on the information you've

04:41:28 1       been provided with regard to Dr. Homburger and  
2       with regard to the allegations by Dr. Henry and  
3       Dr. Kouri, do you still hold the opinion that  
4       researchers supported by CTR, either by grants or  
04:41:44 5       contracts, have the same independence accorded  
6       researchers sponsored by governmental agencies?

7       A           No, I wouldn't agree to that statement.

8       Q           You would ---

9       A           I would not agree to that - to that  
04:42:02 10       statement.

11                   MR. SHELY: Maybe you ought to  
12       try it again.

13                   MR. THORPE: I think you --  
14       Would you repeat -- Would you read it  
04:42:08 15       back?

16

17       (By Mr. Thorpe)

18       Q           I think you may have misinterpreted what I  
19       said. I like your answer, but I'm not sure that's  
04:42:14 20       the answer you wanted to give.

21

22                   ( THE REQUESTED MATERIAL WAS READ  
23       BACK BY THE COURT REPORTER AT THIS  
24       TIME.)

25

04:43:08 1 A Again, that's a global statement. And can  
2 I ask you to simplify the phrasing of that?

3 Q Didn't I read specifically from your  
4 Opinion No. 5?

04:43:40 5 A Yes.

6 Q Based on what we've just discussed, do you  
7 still have that same opinion?

8 A Well, my opinion generally is the same.

9 The issue of contracts, though, there is a  
04:44:08 10 complication in regard to "researchers supported by  
11 contracts" in that they may also be limited by some  
12 stipulations in the contract.

13 Q But isn't your opinion, as stated in this  
14 document that was presented to us - doesn't it state  
04:44:20 15 that, quote, "Researchers supported by such CTR  
16 grants or contracts have the same independence  
17 accorded researchers sponsored by the governmental  
18 agencies or by voluntary" - "voluntary health  
19 organizations or foundations"?

04:44:34 20 A Yes, that is - that is my statement. But  
21 this may provide an opportunity to rephrase that or  
22 to narrow the meaning of that statement.

23 Q Isn't this the statement that was provided  
24 to us by disclosure?

04:44:54 25 A Yes. Yes, it is.

04:44:56 1 Q And this was the disclosure and the  
2 opinions that you formulated with the assistance of  
3 the attorneys for CTR; isn't that correct?

4 A Yes.

04:45:06 5 Q And you submitted this document as your  
6 opinions at that time; is that correct?

7 A Yes. So - so, all right. Let me -- May I  
8 clarify? All right. So, I still do hold that  
9 opinion in that rather than lumping things like  
04:45:40 10 "grants or contracts," basically the way this  
11 probably should - should read is to separate "grants  
12 or contracts" as separate entities so that  
13 "Researchers supported by such CTR grants have the  
14 same independence accorded researchers sponsored by  
04:45:58 15 the government agencies or voluntary health  
16 organizations or foundations."

17 And that "Researchers supported by such  
18 CTR contracts have the same independence accorded  
19 researchers under contracts sponsored by the  
04:46:14 20 government agencies or by voluntary health  
21 organizations or foundations."

22 I'm sorry about, you know, the lack of  
23 precision. That's a very important issue, being  
24 precise in wording in legal documents as well as  
04:46:28 25 scientific documents. And I apologize for that

1 perhaps not being as precise as I would have liked  
2 it to be.

3 Q So, as your opinion is stated here under  
4 No. 5, you no longer hold that opinion as it is  
04:46:38 5 written in this document?

6 A As it is -- Well, it depends on how - how  
7 it's read and how - how that statement is  
8 interpreted. And I hope to have an opportunity to  
9 make more clear what my meaning is. I see that it  
04:47:02 10 isn't as precise as I had intended it to be.

11 Q But it's very clear to me that you have  
12 included both CTR grants and contracts in this  
13 particular opinion.

14 A It says "grants or contracts." And ...

04:47:16 15 Q And you reference "contracts"; is that  
16 correct?

17 A So - so, I think the meaning that I - that  
18 I wish to convey there is that individuals who are  
19 supported by grants by the CTR or by any other  
04:47:34 20 organization have the same level of independence.  
21 Individuals who are supported under contracts,  
22 whether they be through the CTR or any other  
23 organization, have the same level of independence.

24 There may be a -- There is a distinction,  
04:47:48 25 though, in the level of independence by

04:47:50 1 investigators, no matter what the source of their  
2 support, if they're funded through a grant or  
3 through a contract, principally because in  
4 contractual agreements, there may be other

04:48:02 5 stipulations that would restrict what the  
6 investigators can do without approval of the  
7 organization granting the contract.

8 Q Dr. Lukas, earlier, we were talking about  
9 the policy statement given by the Council for  
04:48:24 10 Tobacco Research; is that correct?

11 A Yes.

12 Q And we were talking - in their policy  
13 statement, they stated that the Council was  
14 dedicated to supporting investigation of fundamental  
04:48:38 15 matters relating to a connection between tobacco use  
16 and human health.

17 A Yes.

18 Q Do you remember that?

19 A Uh-huh.

04:48:42 20 Q And earlier I asked you to take a look at  
21 some documents that are generated or were generated  
22 from the Scientific Advisory Board. And the one  
23 that you looked at, in particular, was as a result  
24 of the September, 1984 meeting. Do you remember  
04:49:10 25 looking at those documents?

04:49:10 1 A Yes.

2 Q Again, I'll let Counsel look at this to  
3 assure that that is the document that I originally  
4 produced to you.

04:49:24 5 MR. SHELY: It appears to be. I  
6 didn't make note of the numbers. I  
7 see the same notice here with regard  
8 to the Butler V. Philip Morris, and  
9 I'll take your word that it is. The  
04:49:36 10 only thing I'd ask is at the end of  
11 the deposition, that I get a copy of  
12 this because I don't have it.

13 MR. THORPE: Absolutely. In  
14 fact, I think you were going to get a  
04:49:44 15 copy of all of the exhibits. This is  
16 now to be an exhibit.

17 MR. SHELY: Oh, you're going to  
18 mark it now?

19 MR. THORPE: Yes.

04:49:52 20 MR. SHELY: Oh, okay. Could we  
21 go off the record for one minute?

22 MR. THORPE: Yes.

23  
24 (WHEREUPON, AN 11-PAGE DOCUMENT  
25 WAS MARKED FOR IDENTIFICATION

1 PURPOSES AS EXHIBIT NO. 14. SAME  
2 WILL BE FOUND AT THE CONCLUSION OF  
3 THIS DEPOSITION.)  
4

5 (AT THIS TIME A BRIEF RECESS WAS  
6 TAKEN, AND THE PROCEEDINGS THEREAFTER  
7 RESUMED AS FOLLOWS:)  
8

9 (By Mr. Thorpe)

04:50:4210 Q The document that we've just marked as an  
11 exhibit is entitled, "Actions Taken by the  
12 Scientific Advisory Board During September 19  
13 through 21st, 1984 Meeting." Have you ever seen  
14 this document before, Dr. Lukas?

04:52:0615 A I have earlier at this deposition.

16 Q Have you ever seen any document like this  
17 that was generated by the SAB prior to today?

18 A No, I have not.

19 Q You have not been provided this document  
04:52:1820 by the attorneys for CTR?

21 A No, I have not.

22 Q In your review of this document, what does  
23 this document appear to be?

24 A It seems to be a report of action taken by  
04:52:3825 the Scientific Advisory Board in one of their



04:52:40 1 semiannual meetings, during which they rated  
2 research proposals.

3 Q And under the category "new applications,"  
4 it lists the investigator, the location, and the  
04:52:54 5 project; is that correct?

6 A That's correct.

7 Q On Page 3 of this document, the third  
8 entry is "Ronald J. Lukas, Ph.D."; is that correct?

9 A That's correct.

04:53:10 10 Q And it states your institution. And the  
11 title of the project was "Influences of Nicotine on  
12 Neuronal Expression of Acetylcholine Receptors"; is  
13 that correct?

14 A That's correct.

04:53:22 15 Q And that was the grant that was funded  
16 that we discussed earlier; is that correct?

17 A That seems to be the case, yes.

18 Q Dr. Lukas, can you turn to Page 5 of this  
19 document?

04:53:44 20 A Yes.

21 Q Is there an entry for Dr. Kevin T.  
22 McCusker, M.D.?

23 A Yes.

24 Q And the title of this project was "Effects  
04:54:00 25 of Nicotine or Inflammatory Cell Function"; is that

1 correct?

2 A That's correct.

3 Q Was that project approved or disapproved?

4 A It indicates here that the action taken  
04:54:08 5 was disapproved.

6 Q Would you turn to Page No. 6?

7 A (Complying with Counsel's request)

8 Q There's an entry for an investigator,  
9 Dr. Wong. The project is entitled, "Pulmonary  
04:54:26 10 Toxicities of Passive Smoking in Immature Rats."

11 What was the action taken on that grant?

12 A The action was disapproval.

13 Q On Page 7, there's an entry for  
14 Dr. Legator, entitled, "Smoking: Acetylation" -

04:54:42 15 "Acetylation," A-c-e-t-y-l-a-t-i-o-n, comma,  
16 "Metabolic and Mutagenic Correlates." What was the  
17 action taken on that grant?

18 A Disapproved.

19 Q And at the bottom of that page, there's an  
04:55:02 20 entry for Dr. John Taylor. The project is entitled,

21 "Role of Platelet Fibronectin in Tumor Cell  
22 Metastasis." What was the action taken on that?

23 A Disapproved.

24 Q On Page 9, investigator is Dr. Vatner,  
04:55:24 25 V-a-t-n-e-r.

04:55:26 1 A Yes.

2 Q And the title of that project was "Effect  
3 of Nicotine on Large Coronary Arteries," comma,  
4 "Myocardial Function and Beta-Adrenergic  
04:55:38 5 Receptors." What was the action taken on that?

6 A Disapproved.

7 MR. SHELY: Is this the same  
8 thing?

9 MR. THORPE: This is a  
04:55:54 10 different - same thing, different  
11 year.

12  
13 (WHEREUPON, A 15-PAGE DOCUMENT  
14 WAS MARKED FOR IDENTIFICATION  
15 PURPOSES AS EXHIBIT NO. 15. SAME  
16 WILL BE FOUND AT THE CONCLUSION OF  
17 THIS DEPOSITION.)

18

19 (By Mr. Thorpe)

04:56:52 20 Q Dr. Lukas, I would like you to take a  
21 minute to look at this document we've just had  
22 marked as an exhibit. This document is entitled  
23 "Actions Taken by the Scientific Advisory Board  
24 During September 9 through 11, 1987 Meeting." Is  
04:57:08 25 this document similar to the one we've just been

04:57:12 1 discussing?

2 A It seems to be in that it seems to relate  
3 to activities and decisions made by the Scientific  
4 Advisory Board.

04:57:24 5 Q Would you turn to Page 11, Doctor?

6 A (Complying with Counsel's request) All  
7 right.

8 Q And are you the second to the last entry  
9 on that page?

04:57:36 10 A Yes, I am.

11 Q And your project entitled "Influences of  
12 Nicotine on Neuronal Expression of Acetylcholine  
13 Receptors," what was the action taken by the  
14 Council?

04:57:48 15 A Approved for rating.

16 Q Would you turn back to Page No. 1.

17 A (Complying with Counsel's request)

18 Q There is an entry, the investigator is  
19 Dr. William Banks. The title of his project is

04:58:04 20 "Effect of Nicotine on Blood-Brain Barrier

21 Permeability." Was that approved or disapproved?

22 A Not approved.

23 Q And at the bottom of that page, a request  
24 for funds by Dr. Fung, entitled - the project is

04:58:22 25 entitled "Postnatal Effects of Maternal Nicotine

04:58:26 1 Exposure." What is the action taken?  
2 A Not approved.  
3 Q Could you turn to Page 3, please?  
4 A Yes.  
04:58:32 5 Q There is an entry for request for funds  
6 from a Dr. Das, entitled - the project is entitled,  
7 "Surfactant Secretion in Alveolar Type II Cells  
8 after Smoke Exposure." What was the action taken in  
9 that project?  
04:58:50 10 A Not approved.  
11 Q Would you turn to Page 9?  
12 A Yes.  
13 Q There's a -- The first entry is a Dr. Lai  
14 at the University of Kentucky?  
04:59:20 15 A Yes.  
16 Q Tobacco and Health Research Institute?  
17 A Yes.  
18 Q The title of the project is "Cigarette  
19 Smoke and Pulmonary Emphysema"?  
04:59:28 20 A That's correct.  
21 Q And what was the action taken?  
22 A Not approved.  
23 Q Dr. Lukas, the projects that were  
24 submitted for funding that we have just discussed,  
04:59:44 25 aside from yours, taken in just the title of the

04:59:52 1 project, do these titles, all of them appear to be  
2 related to smoking and health?

3 A Based on those titles, yes, I can see a  
4 possible correlation to smoking and health.

05:00:10 5 Q And none of these were approved; is that  
6 correct?

7 A That's correct.

8 Q Dr. Lukas, No. 6 in your opinion is stated  
9 as follows: "There have been significant changes in  
05:00:26 10 emphasis in scientific research over the past 40  
11 years. In particular, the last two decades have  
12 seen an increased focus on the use of basic  
13 scientific research to study disease etiology,  
14 including the etiology of diseases linked to  
05:00:42 15 smoking.

16 The research supported by the CTR  
17 grants-in-aids, including basic scientific research  
18 at the cellular and molecular level, has generally  
19 reflected the changing focus in biomedical research  
05:00:54 20 as a whole and has been relevant to smoking and  
21 health issues.

22 A significant amount of this research has  
23 been cited in support of statements linking smoking  
24 to disease, including various Surgeon General  
05:01:06 25 reports." Is that a correct reading of your Opinion

05:01:10 1 No. 6?

2 A Yes, it is.

3 Q And what do you base this opinion on?

4 A I base that on, particularly over the last  
05:01:18 5 20 years, my immediate involvement in independent  
6 scientific research, but also a review of the kinds  
7 of research was conducted in - over the past 40  
8 years, even during my training as a student, looking  
9 back at the evolution of science, and particularly  
05:01:40 10 in areas of research interest to me.

11 Q Have any of the research that you have  
12 personally conducted in your graduate studies up  
13 until today involved any in vivo studies?

14 A No, none of my work has concerned in vivo  
05:02:04 15 studies.

16 Q And your studies are not based on animal  
17 models?

18 A That is correct.

19 Q And I believe you have testified earlier  
05:02:14 20 that your studies have not involved the use of  
21 cigarette smoke; is that correct?

22 A That is correct. Cigarette smoke has not  
23 been an experimental variable in any of my research  
24 studies.

05:02:30 25 Q In some of these studies that you've

05:02:30 1 done -- Strike that.

2 In the studies that you've done on the  
3 acetylcholine receptors, are all of these studies  
4 done using nicotine as the agonist?

05:02:44 5 A Not all of those studies. There are other  
6 compounds that I have used as agonists, "agonists"  
7 being drugs that cause activation of receptor  
8 function.

9 Q So, some of the studies that you've done  
05:03:06 10 under the Aggeus of CTR funding have been studies  
11 that did not directly involve nicotine; is that  
12 correct?

13 A Some of my studies -- Well, we use  
14 nicotine. Nicotine is one of the compounds that we  
05:03:18 15 use in our studies. But there are many other  
16 compounds that we use, as well.

17 Q Do you always use nicotine in these  
18 studies?

19 A There are some studies -- I think nicotine  
05:03:32 20 is a common element in many of our studies. It's --  
21 There may be certainly some papers where we haven't  
22 used nicotine as an experimental variable. But it  
23 is an important tool in studies of receptors for  
24 nicotine.

05:03:48 25 Q Have you been provided information on



05:03:52 1 studies relating - directly relating to smoking and  
2 health that are being funded by the CTR that are  
3 studies looking at their effects of - on human  
4 health at both a molecular and cellular level?

05:04:12 5 A Well, it's difficult to answer a question  
6 like that because it's often difficult to determine  
7 whether and when a study is done at the cellular or  
8 molecular level will impact results - will impact  
9 our understanding of health and disease.

05:04:32 10 So, I wouldn't categorically represent  
11 that our research isn't relevant to health and  
12 disease at all. I ...

13 Q Maybe I need to rephrase that. Are you  
14 aware of any studies that you have read in the  
05:05:08 15 materials in preparation for the study that are  
16 directly related to smoking and health that are  
17 being conducted at the cellular and molecular  
18 level?

19 A I think -- Could you rephrase? Could you  
05:05:18 20 repeat?

21 Q Are you - specifically, you - aware of any  
22 studies that are being conducted by CTR-grant  
23 recipients, these studies being conducted at  
24 cellular and molecular levels that directly reflect  
05:05:38 25 studies on smoking and health?

05:05:40 1 A I think that it is possible that they are  
2 related to smoking and health. It's - it's probably  
3 too early to tell, again, whether studies that are  
4 done at the cellular or molecular level will  
05:06:00 5 ultimately impact our understanding of smoking in  
6 disease and health.

7 Q No. 7 in your opinion statement says,  
8 "Contract research - in which the provider of the  
9 funding exercises complete or partial control over  
05:06:16 10 the research protocol and publication of the results  
11 and owns the data - is a legitimate part of the  
12 scientific enterprise.

13 Contracts are a common and entirely proper  
14 mechanism for the funding of scientific research and  
05:06:32 15 are used in research sponsored by Government,  
16 voluntary organizations, foundations and industry."  
17 Is that a true and correct reading of your  
18 statement?

19 A Yes, it is.

05:06:42 20 Q What did you base this opinion on,  
21 Doctor?

22 A It's based on my understanding of contract  
23 research as conducted under the auspices of a  
24 variety of funding organizations. As well as -  
05:06:54 25 although I haven't conducted contract research

05:06:58 1 myself, there have - there has been one occasion  
2 when I entertained that possibility and got somewhat  
3 deep into the process. And, therefore, I've got a  
4 bit of an understanding about how contract research  
05:07:12 5 is conducted.

6 Q I think you also testified that CTR no  
7 longer sponsors contract research; is that correct?

8 A My understanding is that they no longer  
9 support contract research.

05:07:26 10 Q Does NIH still support contract research?

11 A I'm not in a position to be certain about  
12 that, but I would imagine that they still do conduct  
13 some contract research.

14 Q Do you know why CTR no longer sponsors  
05:07:38 15 contract research?

16 A No, I'm not certain as to why they decided  
17 to stop their contract research program.

18 Q Have you been provided any documents from  
19 CTR or in the documents that you have accumulated  
05:07:58 20 that would - that would answer that question?

21 A I haven't seen any documents that describe  
22 the motivation that's behind the decision to suspend  
23 contract research at CTR, no.

24 Q But you are aware of prior contracts that  
05:08:16 25 were awarded by CTR?

05:08:18 1 A Yes, it's evident that there were some  
2 research projects that were sponsored by - under  
3 contract.

4 Q And what is your understanding of those  
05:08:28 5 studies that were funded as contract - contract  
6 projects?

7 A That's a very broad question. Could you  
8 be more specific?

9 Q What is your understanding of the criteria  
05:08:46 10 used to fund - that the CTR used for funding  
11 contracts?

12 A I have - I haven't read any documents, to  
13 my recollection, that would indicate what the  
14 criteria were on which the CTR decided to fund or  
05:09:08 15 not to fund certain projects under contract.

16 Q The studies that we've already discussed,  
17 the ones done by Dr. Homburger and those done by  
18 Drs. Henry and Kouri, were both contracts; is that  
19 your understanding?

05:09:24 20 A That's my understanding, yes.

21 Q Is it common for industry-sponsored  
22 projects to be done under contract?

23 A I'm not in a position to - to state  
24 whether it's common or uncommon for them, for

05:09:54 25 research under industry support to be conducted

05:09:54 1 under contract.

2 Q No. 8 of your opinion statement refers to  
3 "Special Projects" and states, "The so-called,"  
4 quote, "'Special Projects,'" end quote, "research  
05:10:12 5 administered by the CTR was also a legitimate  
6 scientific research. Although not generally of the  
7 same nature as the grant-in-aid research, the  
8 'Special Projects' research was performed by  
9 competent scientists working at respectable  
05:10:28 10 institutions, much of it published in well-regarded  
11 journals." Is that a true reading of your  
12 statement?

13 A Yes, it is, substantively.

14 Q And what do you base this opinion on?

05:10:42 15 A It's based on my review of the special  
16 projects, the investigators who were supported by  
17 the special projects, by the institutions with which  
18 they were affiliated, the listing of the journals in  
19 which those articles were published, the content of  
05:11:04 20 that scientific work, and the fact that to me, until  
21 I became recently more aware of what the special  
22 projects meant, the fact that research supported by  
23 the CTR under the special projects program or the  
24 grant-in-aid program, that my evaluation of those  
05:11:28 25 projects, my judgment of them, was essentially

05:11:30 1 seamless.

2 I saw no difference in the quality or the  
3 scope or the - in the quality of the investigators  
4 or the content - quality of the content of the  
05:11:42 5 articles published under the special projects or the  
6 grants-in-aid program.

7 Q Are you aware that lawyers could and, in  
8 fact, did shift projects from the SAB grants-in-aid  
9 to the special projects?

05:12:00 10 A I am aware of attorney involvement in  
11 suggesting funding for special projects. And,  
12 again, I'm not certain about the sequence of events  
13 that led to those kinds of suggestions.

14 Q Do you know the origins of the special  
05:12:18 15 projects?

16 A Origins of the concept or ---

17 Q Yes.

18 A --- origins of each of the typical ---

19 Q Concepts.

05:12:28 20 A I don't know that I have read any  
21 documents that address the origin of the concept of  
22 the special projects.

23 Q Dr. Lukas, I'm going to ask you to look at  
24 a document entitled "Notes of the Meeting of  
05:12:50 25 Committee of General Counsel Held on September 10th,

05:12:54 1 1981."

2 That document is now being looked at by  
3 the Counsel for CTR. And I would like you to take a  
4 minute to look at that document.

05:13:28 5 MR. THORPE: I would like to  
6 mark it. Why don't we go off the  
7 record for a minute.

8  
9 (WHEREUPON, AN EIGHT-PAGE  
10 DOCUMENT WAS MARKED FOR  
11 IDENTIFICATION PURPOSES AS EXHIBIT  
12 NO. 16. SAME WILL BE FOUND AT THE  
13 CONCLUSION OF THIS DEPOSITION.)  
14

15 (AT THIS TIME A BRIEF RECESS WAS  
16 TAKEN, AND THE PROCEEDINGS THEREAFTER  
17 RESUMED AS FOLLOWS:)  
18

19 (By Mr. Thorpe)

05:24:36 20 Q Dr. Lukas, you have been presented with a  
21 document. As was stated earlier, it's a meeting of  
22 committee of the General Counsel conducted in 1981;  
23 is that correct?

24 A That's correct.

05:25:00 25 Q Does this appear to be the minutes of a

05:25:04 1 meeting held by the stated participants in this  
2 document?

3 A Yes, it does seem to be that.

4 Q And some of the participants are also

05:25:30 5 names that have been discussed earlier in this  
6 deposition; is that correct?

7 A I believe you've mentioned Jacob and Shinn  
8 before.

9 Q And Finnegan?

05:25:42 10 A Finnegan, as well, yes.

11 Q What is the title of Arabic Numeral No. 1  
12 in this memo?

13 A Special projects.

14 Q The second set - second sentence of that

05:26:06 15 particular entry, could you read that to the ladies  
16 and gentlemen of the Jury?

17 A The second sentence under "Jacob"?

18 Q Yes.

19 A "Jacob then defined the special projects

05:26:20 20 and their origin in litigating lawyer needs.

21 Purposes: 1 - develop witnesses - stimulate the  
22 interest of doctors; 2 - develop information re gaps  
23 in knowledge."

24 Q Was it your understanding, prior to

05:26:36 25 looking at this document, that special projects had



05:26:40 1       been initiated out of a litigation need?

2       A           It seems that that was an element in -  
3       in - yes, in the origin of the special projects  
4       program.

05:26:56 5       Q           And was that your understanding prior to  
6       looking at this document?

7       A           I was -- I had no basis to have an opinion  
8       about the origins or the motivation of the special  
9       projects before now. So, this is the first document  
05:27:16 10       that I see - that I have seen that addresses the  
11       motivation or the reasons for forming this - for  
12       establishing the special projects.

13       Q           And you have no other information that  
14       would dispute what is stated here in this document;  
05:27:26 15       is that correct?

16       A           No, I do not.

17       Q           Do you know how many special projects were  
18       funded by the CTR over the years?

19       A           I don't recall the exact number, but it  
05:27:52 20       was over 100.

21                   MR. SHELY: Are you going to  
22       actually mark this, Counsel?

23                   MR. THORPE: No.

24

25

1 (By Mr. Thorpe)

2 Q What did you base your statement on that  
3 it was over 100? Was it a document that was  
4 provided to you?

05:28:24 5 A From review of the Glenn affidavit that  
6 listed the special projects, I believe in  
7 chronological order.

8 Q Dr. Lukas, have you seen this document  
9 prior to this deposition? I believe it was included  
05:28:46 10 in your disclosure (Tendering).

11 A (Reviewing document) Yes, I believe this  
12 is the document to which I referred earlier.

13 Q And it lists a record of each project and  
14 a synopsis of the project and the outcome; is that  
15 correct?

16 A It is a synopsis of each project, listing  
17 the investigator, the institution, the title and the  
18 subject of the project, funding dates, funding  
19 amounts, and the publications or presentations that  
05:29:26 20 emanated from that work.

21 Q And the last entry is Counsel Special  
22 Project No. 138?

23 A Actually, 139 is the last one that I have  
24 here.

05:29:42 25 Q I stand corrected. Now there is 139. Do

05:29:52 1 you know if all of the special projects are listed  
2 in this particular document?

3 A My understanding is that it may not be all  
4 of the special projects. I think there might have  
05:30:12 5 been - might have been some potential shortcomings  
6 in the tally of numbers of documents.

7 Q So, this may not be an actual tally of the  
8 correct number of special projects; is that  
9 correct? That's your understanding?

05:30:28 10 A My understanding is -- Right. On the  
11 first page of this document, it looks like Footnote  
12 No. 1, it says, "This list contains publications,  
13 et cetera. In some instances, it is not clear  
14 whether a listed publication resulted from a  
05:31:00 15 particular special project."

16 It also says, "The Counsel believes that  
17 additional publications and presentations may have  
18 resulted from Counsel's special project funding."  
19 So, my recollection may be somewhat faulty. It may  
05:31:18 20 be the case not that all the - that there may have  
21 been some other special projects that aren't listed  
22 here, but rather my recollection is in reference to  
23 the publications that derived from that - those  
24 projects.

05:31:32 25 Q And if all of -- Have you seen any other

05:31:34 1 special projects or any documents referring to  
2 special projects that were not included in this  
3 document?

4 A To my knowledge, I don't - I'm not aware  
05:31:44 5 of any other special projects that weren't included  
6 in that document.

7 Q Is it your understanding that - and I  
8 think we touched on this earlier - but that lawyers  
9 oversaw the funding, the conduct, and the renewals  
05:31:58 10 of special projects?

11 A My understanding to this point was that  
12 lawyers entered into the process at some point in  
13 suggesting special projects for consideration.

14 Q Do you think that since it appears that  
05:32:20 15 special projects are - and I'll paraphrase - but are  
16 litigation driven, do you think that that throws a  
17 bias in the studies or could possibly throw a bias  
18 in the studies?

19 A Well, first of all, I don't know that  
05:32:38 20 that's a complete representation. After all, the  
21 purposes listed here are to "develop witness -  
22 stimulate the interest of doctors" and to "develop  
23 information re gaps in knowledge."

24 So, it seems that there were a couple of  
05:32:54 25 issues that were factors in initiating the special

05:33:00 1 projects program. But - but, no, if -- I don't know  
2 that the scientific process, once underway, would be  
3 influenced one way or the other by what the motives  
4 were for creation of the special projects program.

05:33:18 5 Q Do you know whether or not the information  
6 generated from the special projects was under the  
7 control of the lawyers?

8 A I haven't seen any evidence along those  
9 lines. For example, I have seen no evidence that  
05:33:36 10 research that - for example, research supported by  
11 special projects related to tobacco, the use and  
12 health and disease. And, again, I see no  
13 distinction in the scientific quality of research  
14 supported by those projects or by the grant-in-aid  
05:33:58 15 program.

16 Q If, in fact, it were true that lawyers had  
17 control or could control the results of these  
18 studies, would - would that suggest to you the  
19 possibility that there may be bias in the - in the  
05:34:20 20 results that are published or in the results that  
21 are presented to the public?

22 A I believe -- Could you - could you  
23 restate? Could you repeat ---

24 MR. THORPE: Could you read ---  
05:34:28 25 A --- the question, please?

1 MR. THORPE: --- it back?

2  
3 (THE REQUESTED MATERIAL WAS READ  
4 BACK BY THE COURT REPORTER AT THIS  
5 TIME.)  
6

7 A Well, first of all, I don't know that -  
8 without being in the laboratory, that the attorneys  
9 would have control over the results that are  
05:35:0610 obtained in the scientific investigation. So,  
11 perhaps I'm not ---

12 Q No. The question ---

13 A --- getting the meaning of your question.

14 Q The question I'm asking is: If the  
05:35:1815 lawyers are able to control whether that information  
16 is disseminated or not and only disseminate that  
17 information they want to disseminate, would that  
18 lead you to believe that there could be bias in the  
19 information generated in special projects?

05:35:4020 A Well, again, I don't know that that would  
21 bias the information generated. It certainly -- If  
22 in the hypothetical the attorneys somehow regulate  
23 the dissemination of information from those studies,  
24 then I think that certainly could be influenced, by  
05:35:5825 definition, by the - by the attorneys.

05:36:08 1 Q If you prevent it from being disseminated,  
2 that prevents people from knowing what the studies  
3 actually show; is that correct?

4 A It has the potential to do that, yes.

05:36:28 5 Q Dr. Lukas, have you ever read a study  
6 written by Dr. Blackman entitled "The Controversy on  
7 Smoking and Health"?

8 A I don't recall reading that or the details  
9 of that. But I believe that's something that I have  
05:36:44 10 looked at.

11 Q You have looked at that?

12 A (Nodding affirmatively)

13 Q Do you know whether or not that particular  
14 article was written by -- Strike that.

05:36:58 15 Do you know whether or not Dr. Blackman  
16 was a recipient of CTR funding?

17 A I don't recall precisely whether he was or  
18 not. But if I'm not mistaken, I think I have seen  
19 his name perhaps in the special projects. I'm not  
05:37:16 20 certain.

21 Q And you state that you are aware of - are  
22 vaguely aware of the article that I have just  
23 mentioned?

24 A Vaguely aware of, yes.

05:37:30 25 Q Do you know whether or not any attorneys

05:37:32 1 had a role in any revisions of that article?

2 A I am not in a position to know whether  
3 that occurred or not.

4 MR. THORPE: I would like that  
05:37:48 5 marked as an exhibit.

6  
7 (WHEREUPON, AN EIGHT-PAGE  
8 DOCUMENT WAS MARKED FOR  
9 IDENTIFICATION PURPOSES AS EXHIBIT  
10 NO. 17. SAME WILL BE FOUND AT THE  
11 CONCLUSION OF THIS DEPOSITION.)  
12

13 (By Mr. Thorpe)

14 Q Dr. Lukas, would you take a minute to look  
05:39:04 15 over this letter.

16 A (Reviewing document)

17 THE VIDEOGRAPHER: Do you want  
18 to go off?

19 MR. THORPE: Yeah. I'm sorry.  
20

21 (AT THIS TIME A BRIEF RECESS WAS  
22 TAKEN, AND THE PROCEEDINGS THEREAFTER  
23 RESUMED AS FOLLOWS:)  
24  
25



1 (By Mr. Thorpe)

2 Q Dr. Lukas, the letter that we've had  
3 marked for your deposition is a letter from the  
4 General Counsel of Brown & Williamson Tobacco  
05:44:26 5 Corporation; is that correct?

6 A That's correct.

7 Q And Mr. Wells - and it's addressed to a -  
8 what appears to be another attorney at  
9 British-American Tobacco Company Limited in London?

05:44:40 10 A That's correct.

11 Q We discussed earlier a publication that  
12 you were familiar with in preparation for this  
13 deposition entitled "The Controversy on Smoking and  
14 Health."

05:44:54 15 In your reading of this particular letter,  
16 does it appear that the attorney, Mr. Wells, is -  
17 has done some draft revisions of that particular  
18 document or is, at least, suggesting draft  
19 revisions?

05:45:20 20 A It seems that there is, yes, a suggestion  
21 that some revisions be made.

22 Q And there are - following the first part  
23 of the letter suggesting that these be made, there  
24 are, in fact, a number of pages of suggested  
05:45:36 25 revisions; is that correct?

05:45:36 1 A That's correct.

2 Q And, in fact, I believe there is - the

3 last one is No. 45; is that correct?

4 A I may be missing a page. The last one

05:45:52 5 that I have is No. 40. Yes, it looks like there's a

6 page that's missing, No. 06.

7 Q Yes. But the representation is that there

8 were - there appear to be at least 45 suggested

9 changes; is that correct?

05:46:12 10 A Well, again, there are 40 - there are 40

11 listed here. But there is a page that's missing.

12 This goes from 05 to 07.

13 Q 45 (Indicating).

14 A Oh, No. 45 there, right. There is a ...

05:46:28 15 Q And that last -- No. 45 is at the

16 signature page; is that correct?

17 A That's correct.

18 Q Have any lawyers ever reviewed and

19 suggested changes to any of the manuscripts that you

05:46:40 20 have written?

21 A No, they have not.

22 Q Does this appear to be an unusual

23 occurrence, that lawyers would be suggesting

24 revisions of a manuscript?

05:46:56 25 A I don't -- Again, I don't know the

05:46:58 1 circumstances, though, precisely, of Dr. Blackman's  
2 intent or support or any obligations that he might  
3 have had in preparing this paper.

4 Q But it is your ---

05:47:16 5 A But it is an unusual practice for any  
6 individual having a grant-in-aid.

7 Q But you also believe that Dr. Blackman  
8 might be a special projects recipient?

9 A I'm not certain about that, but that's a  
05:47:32 10 possibility.

11 Q Dr. Lukas, the enumerated Opinion No. 9 of  
12 your report states that "Much of the scientific  
13 research done in the United States is conducted  
14 under the direct or indirect sponsorship of industry  
05:47:48 15 or other" - "or other for-profit groups. This  
16 sponsorship is important to the development of  
17 scientific knowledge.

18 Neither the integrity nor the validity of  
19 scientific research is determined by the source or  
05:48:02 20 mechanism of funding for the research or even by the  
21 source of ideas for the research. Rather they are  
22 dependent upon the integrity and the competence of  
23 the scientists who carry out that research and on  
24 the peer review process."

05:48:14 25 Is that a correct reading of that

05:48:16 1 opinion?

2 A That's correct.

3 Q And do you still stand by that opinion?

4 A Yes, I do.

05:48:22 5 Q What do you base your opinion on, Doctor?

6 A Again, I base that opinion on my  
7 activities as an independent scientist and my  
8 understanding of the scientific process, how  
9 independent investigators conduct themselves,

05:48:42 10 regardless of the source of the support for their  
11 research, that their objective is to conduct the  
12 research and report the results according to -  
13 according to scientific - scientific - scientific  
14 principles, and to do so with integrity.

05:49:06 15 Q The majority of your funding has not been  
16 from industry; is that correct?

17 A That's correct.

18 Q And, in fact, almost none of your funding  
19 has really been industry-generated; is that  
20 correct?

21 A Yes. As we mentioned before, the only  
22 possible exception would be the Epi-Hab,  
23 Incorporated, funding.

24 Q If a grantee or someone who is performing  
05:49:34 25 research for industry is restricted in its ability

05:49:42 1 to publish results, if those results are kept  
2 in-house and are not disseminated simply because the  
3 results are not favorable to that industry, isn't  
4 that almost a corruption of the scientific process?

05:50:04 5 A I can see where it might be characterized  
6 as such by - in the opinion of some individuals,  
7 yes.

8 Q Doctor, in the statement that was provided  
9 to us on your opinions, you've - it has expressed  
05:50:20 10 that you may be called to testify as a rebuttal  
11 witness. Have you discussed the possibility of you  
12 being a rebuttal witness in the Texas case?

13 A No, we haven't discussed that scenario.

14 Q Do you know what a rebuttal witness is?

05:50:40 15 A Well, my understanding as a layperson is  
16 that it would be a witness who would render opinions  
17 on behalf of one party as opposed to on behalf of  
18 another.

19 Q Have you been asked to be a rebuttal  
05:50:58 20 witness in any other tobacco-related litigation  
21 involving CTR?

22 A Not explicitly, no.

23 Q But the possibility has been discussed  
24 with you; is that correct?

05:51:10 25 A We haven't explicitly discussed it in

05:51:10 1

those terms, no.

2

Q Based on your testimony today that you

3

will probably review more materials and may review

4

other depositions or other materials in preparation

05:51:36 5

for this - for testimony in the State of Texas case

6

as well as the fact that you've been listed as a

7

possible rebuttal witness, the State would reserve

8

the right to call you again and redepose you, based

9

on new information that you have reviewed for your

05:51:56 10

testimony and/or your designation as a rebuttal

11

witness.

12

MR. THORPE: I'll pass the

13

witness.

14

MR. SHELY: Thank you.

05:52:08 15

MR. OTT: Could we go off the

16

record for a second?

17

MR. SHELY: Let's go off the

18

record for a second.

19

MR. THORPE: Sure.

20

21

(AT THIS TIME A BRIEF RECESS WAS

22

TAKEN, AND THE PROCEEDINGS THEREAFTER

23

RESUMED AS FOLLOWS:)

24

25

1 EXAMINATION BY MR. SHELLEY:

2 Q Good afternoon, Dr. Lukas. We've met  
3 before. My name is Bob Shely. But for the benefit  
4 of the ladies and gentlemen of the Jury, I wanted to  
05:54:30 5 introduce myself on the record. And I only have a  
6 few areas that I wanted to clean up.

7 Oh, yeah. My colleague reminds me that I  
8 represent CTR. I think that may have been on the  
9 record at the beginning, but I can't recall.

05:54:42 10 There are a few areas that I would like to  
11 clean up, and then hopefully we can let you get out  
12 of the deposition and get on with your other  
13 activities for the day.

14 You had thought that it would be  
05:54:56 15 appropriate to reword your opinion in Paragraph  
16 No. 5 of your opinion statement; is that right?

17 A That's correct.

18 Q And that came up during counseling by  
19 Mr. Thorpe, this gentleman?

05:55:12 20 A Yes, that's correct.

21 Q One of the opinions that you give or that  
22 you provide in your disclosure statement is  
23 Paragraph No. 7 with regard to contract research.  
24 Do you see that?

05:55:24 25 A That's correct.

05:55:28 1 Q And as I understand the gist of that  
2 paragraph, it's your opinion that "Contracts are a  
3 common and entirely properly" - "proper mechanism  
4 for the funding of scientific research"; is that  
05:55:36 5 right?

6 A That's correct.

7 Q And they're "used in research sponsored by  
8 government, voluntary organizations, foundations and  
9 industry"?

05:55:44 10 A That's correct.

11 Q Now, when those sorts of entities,  
12 government, voluntary organizations, foundations and  
13 industry provide contract research funds, to what  
14 extent is a common practice for them to impose  
05:56:00 15 certain limitations, either on the nature, style, or  
16 end product of any publication that may come as a  
17 result of those funds?

18 A Well, I think that that would vary across  
19 those agencies. I can't give a blanket statement  
05:56:16 20 about that because it probably depends on the - it  
21 depends on the stipulations in each individual  
22 contract.

23 Q But my point is that it is common in  
24 contract funding to impose certain stipulations on  
05:56:32 25 the parties doing the research; is that right?



05:56:36 1 A It is common that there would be some  
2 stipulations in the contracts that could restrict,  
3 to some extent, the activities of the individuals  
4 who are receiving that kind of support.

05:56:44 5 Q And to what -- And that's true regardless  
6 of the source, whether government, voluntary  
7 organizations, foundations or industry, correct?

8 A That's my understanding, yes.

9 Q All right. And let's go back to  
05:56:56 10 Paragraph 5. When you were talking about contracts  
11 having the same independence accorded research -  
12 researchers supported by contracts having the same  
13 independence accorded researchers sponsored by  
14 government agencies or other agencies, what did you  
05:57:16 15 mean by that language?

16 A I meant that within the realm of contract  
17 research, that individuals who obtained support from  
18 the Council for Tobacco Research have the same level  
19 of independence accorded researchers supported by  
05:57:34 20 contracts sponsored by other government - by  
21 government agencies or other voluntary health  
22 organizations or foundations.

23 Q Thank you. And what did you mean when  
24 you, in Paragraph 5 of your disclosure statement,  
05:57:48 25 stated that "Researchers supported by CTR grants

05:57:52 1 have the same independence accorded researchers  
2 sponsored by the governmental agencies," et cetera?

3 A Exactly that, that researchers supported  
4 by grants have typically the same sort of  
05:58:10 5 independence, regardless of the source of funding,  
6 whether it be the Council for Tobacco Research,  
7 government agencies, or voluntary health  
8 organizations or foundations.

9 Q Was it your intent or purpose in the  
05:58:20 10 wording of Paragraph 5 to suggest that any  
11 researcher receiving a grant has the same freedoms  
12 and independence as the same researcher receiving  
13 funds under a contract?

14 A No, that was not my intent.

05:58:44 15 Q Okay. Now, Mr. Thorpe here showed you and  
16 talked to the ladies and gentlemen of the Jury about  
17 a couple of exhibits. And I'm going to put them  
18 back in front of you. They are Exhibits No. 14 and  
19 15, as marked in your deposition.

05:59:02 20 One is entitled "Action Taken by the  
21 Scientific Advisory Board During the September 19 -  
22 21, 1984 Meeting." And that's been marked as  
23 Exhibit No. 14. I'll put that back or a copy of it  
24 back in front of you here, Doctor (Tendering).

05:59:22 25 A Thank you.

05:59:22 1 Q And the Exhibit No. 15 is entitled "Action  
2 Taken by the Scientific Advisory Board During the  
3 September 9 - 11, 1987 Meeting." And that's been  
4 marked as No. 15. I'll provide you a copy of that,  
05:59:36 5 as well (Tendering).

6 A Thank you.

7 Q Do you recall having some discussions with  
8 Mr. Thorpe earlier this afternoon about those two  
9 documents?

05:59:42 10 A Yes, I do.

11 Q And he took you through a number of  
12 proposed applications for research projects that had  
13 been disapproved. Do you - do you recall that?

14 A That's correct.

05:59:54 15 Q He did not take you through each and every  
16 one of the applications that is reflected in the -  
17 in these documents, did he?

18 A No, he did not.

19 Q So, you understand as a scientist that  
06:00:08 20 ultimately one thing that you as a scientist want to  
21 do is find out all the evidence that you can on a  
22 particular subject and form an objective opinion as  
23 to what that evidence means, correct?

24 A That's correct.

06:00:18 25 Q And you understand in this case that the

06:00:20 1 ladies and gentlemen on the Jury are instructed to  
2 take all the evidence that they get and to come up  
3 with the truth, correct?

4 A That's correct.

06:00:28 5 Q All right. Now, Mr. Thorpe had asked you  
6 with regard to the particular project that had been  
7 disapproved, whether those all tended to deal with  
8 health and smoking, correct?

9 A That's correct.

06:00:40 10 Q And you agreed that, at least as to the  
11 ones he pointed out to you, that those did seem to  
12 deal with smoking and health effects of smoking,  
13 correct?

14 A That's correct, solely based on the titles  
06:00:58 15 of the applications.

16 Q Thank you. And as to the reasons they  
17 were disapproved, do you have any knowledge as to  
18 why those projects were disapproved?

19 A No, I don't.

06:01:06 20 Q What -- I mean, what in the realm of  
21 reasons might be reasons that any project is  
22 disapproved?

23 A There - there are a number of reasons.  
24 In some cases, a couple of the proposals that  
06:01:20 25 Mr. Thorpe mentioned had very high requests for

06:01:24 1 funding. And sometimes that's a factor,  
2 particularly if a lot of fundable grants are on the  
3 table and more fundable grants than it is possible  
4 to support.

06:01:40 5 But there are lots of other issues  
6 relating to decisions that - decisions about whether  
7 a particular application should be funded or not,  
8 principally relating to its scientific merit, its  
9 relative standing in terms of scientific merit  
06:01:58 10 compared to other applications that are also in the  
11 process of being rated. And also other - probably  
12 some issues relating to programmatic balance.

13 I do seem to recall one of the entries,  
14 although I can't find it here immediately, relate to  
06:02:18 15 effects of nicotine on fetal or maternal function.  
16 And I know that about that same time - I think that  
17 about that same time, such research was funded by  
18 Dr. Sastry. And I believe he's in - somewhere at  
19 one of the institutions in Kentucky.

06:02:34 20 So, there may have been an issue there. I  
21 can only speculate. But there may have been an  
22 issue there of being duplication of the kinds of  
23 research that was done, or maybe a decision was  
24 made, "We don't have enough money to support all of  
06:02:44 25 these things. This is a nice project, but we

06:02:48 1 already have somebody who is doing this kind of  
2 work. Let's see" - maybe encourage this fellow to  
3 apply again or have those folks enter into some  
4 competition later on.

06:03:00 5 But there are a lot of different factors  
6 that enter into making those kinds of decisions.  
7 Both - and those are issues that are considered by  
8 the study sections or by the Scientific Advisory  
9 Boards that are discussed during the proceedings.

06:03:20 10 And those are also issues that are taken into  
11 consideration as the scientific staff or of the - or  
12 the administrative staff at the funding agencies  
13 makes decisions about what projects should be  
14 funded.

06:03:32 15 Q Okay. Can you tell by looking at the  
16 titles of these - of these applications in Exhibits  
17 No. 14 and 15 what the experimental structure was or  
18 the proposed structure for the experiment was?

19 A No, one cannot make such a determination  
06:03:54 20 simply from the titles of the applications.

21 Q And can you judge from the titles of the  
22 applications whether the project in practicality  
23 deals directly with the -- Let me strike that.

24 Can you judge the smoking and health  
06:04:10 25 implications of a particular title - of a particular

06:04:16 1 project from just the title?

2 A No.

3 Q Okay. Now, I would like you to take a  
4 look at Exhibit No. 14. I want to talk about some

06:04:24 5 of the applications that were supported that  
6 Mr. Thorpe didn't take you through. And if you  
7 would take a look, sir, at Exhibit No. 14 on Page  
8 No. 4 ---

9 MR. THORPE: So that we don't  
06:04:38 10 get a confusion, you stated that  
11 these were supported; and I don't  
12 believe that that's a correct  
13 interpretation of what the "action  
14 taken" represents.

06:04:46 15 MR. SHELLY: They'll say  
16 "approved for rating." And I'm  
17 happy to have the witness clarify  
18 that.

19  
20 (By Mr. Shely)

21 Q And I would like you to take a look, for  
22 example, at Page No. - let's go to Page No. 5. I  
23 see we're running out of tape here; so, I'll  
24 expedite things. Look down at the second from the  
06:05:08 25 bottom entry there on Page No. 5.

06:05:12 1 A Yes.

2 Q That's the Adrien C. Moessinger project?

3 A That's correct.

4 Q And what is that one entitled?

06:05:18 5 A The title is "Mothers Who smoke and the

6 Lungs of Their Offspring."

7 Q And what was the rating given on that

8 one?

9 A It was approved for rating.

06:05:26 10 Q Okay. Take a look - because as I said,

11 we're running out of time here. But look at

12 Exhibit No. 15, and start off there on Page No. 5.

13 And look at the second entry down there, the

14 Torngy Svensson ---

06:05:44 15 A Yes.

16 Q --- item.

17 A Yes.

18 Q And what is the title of that one?

19 A "Cellular Basis of Smoking Behavior."

06:05:50 20 Q And what happened on that - that

21 application?

22 A That was approved for rating.

23 Q And take a look at Page No. 6. Do you see

24 the second entry down there for Mr. - Dr. Dempsey?

06:06:04 25 A Yes.



06:06:04 1 Q And what was the title of that one?  
2 A "Loading and Respiratory Muscle  
3 Recruitment."  
4 Q Okay. And what was the result of that  
06:06:12 5 one?  
6 A That was approved for rating.  
7 Q All right. How about going over to Page  
8 No. 11, the bottom item on that page?  
9 A Yes.  
06:06:28 10 Q What was the title -- Who is -- There was  
11 an item from Leslie Myatt, Ph.D.  
12 A Yes.  
13 Q And what was the title of that one?  
14 A "The Effect of Cigarette Smoking on  
06:06:40 15 Vascular Responses in the Human Placental  
16 Circulation."  
17 Q Okay. And what happened to that - that  
18 application?  
19 A That was approved for rating.  
06:06:50 20 Q And, let's see. Let's take one more here  
21 on the last page of that Exhibit No. 15, the  
22 Henry T. Lynch, the second one down, application.  
23 And what was the title of that one?  
24 A "A Case/Control Study of Breast and Lung  
06:07:14 25 Cancer."

06:07:14 1 Q Okay. And what happened to that one?

2 A That was approved for rating.

3 Q All right. Now, sir, I think - I can't  
4 remember Mr. Thorpe's exact question to you in your  
06:07:22 5 earlier portion of the deposition but essentially  
6 was along the lines that a number of these appear to  
7 relate - a number of the studies that were  
8 disapproved appear to relate to smoking and health,  
9 correct?

06:07:32 10 A Yes.

11 Q And the ones I just relayed to you or had  
12 you identify also appear to relate to smoking and  
13 health, correct?

14 A Yes, they do.

06:07:40 15 Q Would it be your view that the Jury ought  
16 to have this full document and the evidence on both  
17 sides before it makes a decision as to the nature of  
18 research funded by CTR?

19 A I think that would - that would help them  
06:07:52 20 form their own opinions, yes.

21 MR. SHELY: Thank you very much,  
22 sir.

23 MR. THORPE: Pass?

24 MR. SHELY: Pass.

25 THE VIDEOGRAPHER: I need ---

1 MR. OTT: We have one ---

2 THE VIDEOGRAPHER: --- to switch  
3 tapes.

4 MR. THORPE: Okay. And then --  
5 All right.

6 MR. OTT: We have a couple more  
7 questions.

8 MR. THORPE: Good.

9  
10 (AT THIS TIME A BRIEF RECESS WAS  
11 TAKEN, AND THE PROCEEDINGS THEREAFTER  
12 RESUMED AS FOLLOWS:)

13  
14 (By Mr. Shely)

06:10:2815 Q Doctor, I have one more question for you,  
16 plus a setup question, I guess. But you had some  
17 discussions with Mr. Thorpe regarding an article by  
18 a Dr. Blackman?

19 A That's correct.

06:10:3820 Q Do you know for certain whether or not  
21 Dr. Blackman was funded by CTR?

22 A No, I don't.

23 Q Thank you.

24 MR. SHELY: Now I pass the  
06:10:4625 witness.

RE-EXAMINATION BY MR. THORPE:

Q Dr. Lukas, I have some more questions for you. The two documents that we were - that Counsel for CTR has just gone over with you, the '84 and '87 meeting of the Scientific Advisory Board, these were actions taken by the Scientific Advisory Board; is that correct?

A That's correct.

Q And under the actions taken, there are several categories; but the categories that Counsel - the grants - grant applications that Counsel read to you were approved for rating; is that correct?

A Approved for rating, yes.

Q And those that I read were disapproved by the SAB; is that correct?

A That's correct.

Q You have testified earlier that the final decision of grant funding by the CTR was not made by the Scientific Advisory Board but was, in fact, made by - ultimately by the scientific director; is that correct?

A That is my understanding, yes.

Q Do you know whether any of the grants that were read to you by Counsel were funded - were

06:12:00 1 indeed funded by the CTR?

2 A At the moment, I don't know.

3 Q And I'm sure by the time trial comes, you  
4 probably will know; is that correct?

06:12:12 5 A It would be easy to figure that out.

6 Q But at this time and during this  
7 deposition, you do not know whether those grants  
8 were actually ultimately approved by the CTR; is  
9 that correct?

06:12:24 10 A I can -- I can testify with certainty that  
11 Dr. Lukas got his funding.

12 Q Yes, absolutely. And I - I will not  
13 question that whatsoever. You also stated that your  
14 statement in your Opinion No. 5 was -- Strike that.

06:12:44 15 In your Opinion No. 5, there was a  
16 statement that was - the sentence said, "Researchers  
17 supported by such CTR grants or contracts have the  
18 same independence accorded researchers sponsored  
19 by," et cetera; is that correct?

06:13:00 20 A Yes.

21 Q Do you intend to modify or amend or  
22 retract that opinion at this time?

23 A Given the opportunity, I would like to  
24 clarify that opinion.

06:13:14 25 MR. THORPE: And I guess

06:13:14 1 that will be worked out among  
2 Counsel?

3 MR. SHELY: Well, we may have  
4 already done that. I don't want to  
06:13:24 5 interrupt your thing. But he - he -  
6 I think he restated something on the  
7 record earlier.

8 MR. THORPE: However, Counsel,  
9 the wording of that particular  
06:13:34 10 statement is as it says, "CTR grants  
11 or contracts."

12 And I know he's clarified that  
13 in his deposition. However, this  
14 document is part of the disclosure.  
06:13:44 15 And I would prefer that the  
16 disclosure correctly state his  
17 opinion.

18 And if it needs to be modified,  
19 then I'm sure that that can be  
06:13:54 20 arranged.

21 MR. SHELY: That - that's a fair  
22 statement.

23  
24 (By Mr. Thorpe)

06:13:58 25 Q Also -- Counsel also asked you questions

06:14:02 1 about contracts that awarded by - under No. 7,  
2 the contract research. And you have earlier  
3 testified that NIH also awards contracts; is that  
4 correct?

06:14:18 5 A To my understanding, yes, they do.

6 Q Do you know whether or not the NIH puts  
7 restrictions on the publication or dissemination  
8 of information generated from NIH contracts?

9 A As a public entity, I don't believe  
06:14:34 10 that they do. That's not part of the contractual  
11 stipulation in those kinds of awards from the  
12 NIH.

13 Q And NIH is, in fact, a governmental  
14 entity; isn't that correct?

06:14:46 15 A That's correct.

16 Q Does the NIH fund grants that are  
17 substantially similar to different investigators?

18 A I think there's a possibility that they  
19 do. There's a possibility that the areas of  
06:15:12 20 investigation by one investigator might be very  
21 similar to areas of investigation by another and  
22 that both of those investigators might have NIH  
23 support, partly because the NIH budget is much  
24 larger and there are many - many more investigators  
06:15:30 25 supported by NIH funding than any other single

06:15:34 1 organization.

2 Q Are organizations -- Are there studies --  
3 Strike that.

4 So, in fact, NIH does fund what Counsel  
06:15:50 5 refer to as duplicate research?

6 A I don't know that it would be duplicate.  
7 But it would be research in similar areas. And if  
8 you wish, I could give perhaps some examples.

9 Q Does the American Cancer Society also fund  
06:16:06 10 similar type of projects?

11 A There is that possibility.

12 Q Does the American Heart Association  
13 similarly do so?

14 A There is that possibility, yes.

06:16:16 15 Q Are the funds provided by the CTR greater  
16 or lesser than those funds provided for research by  
17 the American Heart Association?

18 A I haven't committed to memory the scope  
19 financially of the research programs of those  
06:16:34 20 agencies, but I wouldn't be surprised if the CTR  
21 program isn't somewhere in that same range as the  
22 American Heart.

23 MR. THORPE: I'll pass the  
24 witness.

06:16:44 25 MR. SHELY: I have nothing



06:16:46 1

further. Thank you ---

2

MR. THORPE: Thank you, Doctor.

3

MR. SHELY: --- Counsel. Thank

4

you, Dr. Lukas.

5

6

(THE DEPOSITION WAS CONCLUDED AT THIS TIME)

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1 THE STATE OF \_\_\_\_\_:

2 COUNTY OF \_\_\_\_\_:

3  
4 I, RONALD JOHN LUKAS, Ph.D., hereby  
5 certify that I have read the foregoing transcript of  
6 my testimony given in the foregoing numbered and  
7 styled case, and that same is true and correct to  
8 the best of my knowledge and belief.

9 I further certify that any and all  
10 corrections have been made on a separate page and  
11 initialed by me.

12  
13 This \_\_\_\_\_ day of \_\_\_\_\_, 1997.

14  
15  
16 \_\_\_\_\_  
RONALD JOHN LUKAS, Ph.D.

17  
18  
19 SWORN TO AND SUBSCRIBED BEFORE ME this

20  
21 \_\_\_\_\_ day of \_\_\_\_\_, 1997.

22  
23  
24 \_\_\_\_\_  
NOTARY PUBLIC

06:16:5025

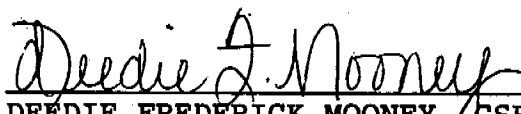
1 THE STATE OF TEXAS:  
2 COUNTY OF JEFFERSON:

3 I, DEEDIE FREDERICK MOONEY, a Certified  
4 Shorthand Reporter, hereby certify that the  
5 foregoing testimony was given before me after the  
6 Witness had been first duly sworn.

7 I further certify that this deposition was  
8 typed under my direction and is a complete and  
9 correct transcript of the proceedings; and that it  
10 is being filed with the Court in accordance with the  
11 Stipulation of Counsel contained in this deposition.

12 I further certify that I am neither  
13 attorney for, related to nor employed by any of the  
14 parties to the lawsuit in which this deposition was  
15 taken. Further, I am neither related to nor  
16 employed by any attorney of record in this cause;  
17 nor do I have a financial interest in the matter.

18 GIVEN UNDER MY HAND AND SEAL OF OFFICE  
19 this 25<sup>th</sup> day of August, 1997.

20  
21   
22 DEEDIE FREDERICK MOONEY, CSR  
23 Certification No. 6023  
24 Expiration Date: 12/31/97  
25 Charlotte Smith Reporting, Inc.  
235 Orleans, Kyle Building  
Beaumont, Texas 77701  
(409) 839-4407

DEPOSITION STIPULATIONS

NO. 5:96CV91 Deposition of: RONALD JOHN LUKAS, Ph.D.

Please complete this Stipulation or state your agreed Stipulations on the record.

The Attorneys for all parties present stipulate and agree to the checked items as follows:

1. Deposition is being videoed. Yes X No       
Video Operator: OLIVER JONES

2. Deposition is taken pursuant to:

- a. Texas Rules of Civil Procedure
- X   b. Federal Rules of Civil Procedure
- X   c. Notice
- d. Subpoena
- e. Agreement
- f. Court Order

3. Objections:

- a. Reserve all objections, except as to form and responsiveness
- X   b. Reserve all objections to time of trial
- c. Make all objections at the time of deposition
- d. An objection by one defendant shall be considered an objection by all defendants

4. Signature:

- a. Signature of Witness is waived
- X   b. Witness to read and sign deposition
- X   c. If deposition not signed by time of trial, unsigned copy may be used as though signed and timely filed

5. Custodial Attorney:

The deposition original will be sent to LARRY W. THORPE for safekeeping and use at the time of trial.

6. Foreign jurisdiction:

Reporter may swear the Witness in a foreign jurisdiction. Yes      No     

7. Original deposition cost:

Shall be paid by the Attorney asking the first question.